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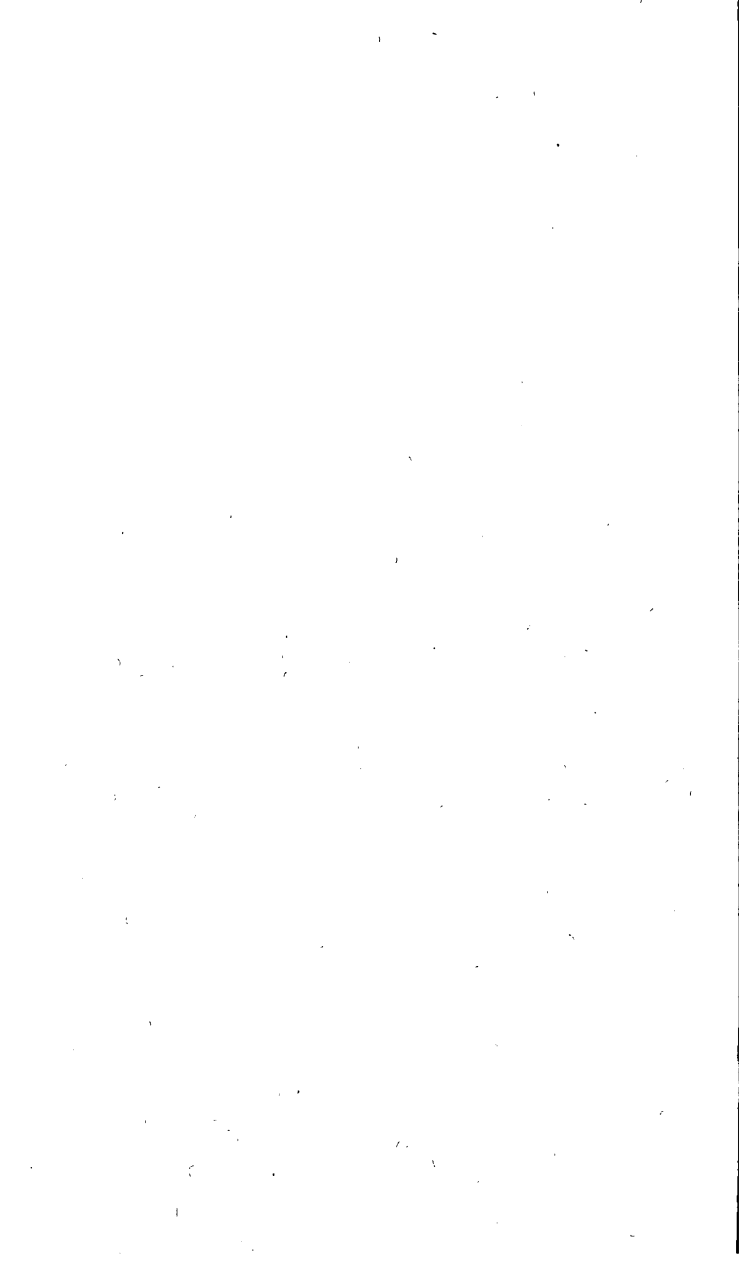
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UNIVERSITEITSBIBLIOTHEEK GENT







H. N. 1250



CATALOGUE

HN 1250

OF THE

SPECIMENS OF SNAKES

IN

THE COLLECTION

OF THE

BRITISH MUSEUM.

296

PRINTED BY ORDER OF THE TRUSTEES.

LONDON, 1849.

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INTRODUCTION.

THE chief object in preparing the present Synopsis has been to give at one view a complete Catalogue of all the species of Snakes now in the British Museum collection, and an account of the species known to exist in other collections, but which are desiderata in the Museum collection, to enable travellers, collectors, and others, to assist in completing the national collection.

At the end of the description of each species is added an enumeration, stating the state, age, country, and other peculiarities of each specimen of the kind in the Museum collection; and when the specimen is not in that collection, the museum or collection in which it has been observed or described is added after the general habitat of the species. The individuals in the Museum collection are indicated by the letters *a*, *b*, *c*, &c.

When the age of the specimen is not stated, it is to be understood that it is full grown, or nearly so; when otherwise, its state is marked; and the sex, when known, and the habitat, as particularly as the materials possessed by the Museum will permit, are added after the letter by which the individual is indicated.

Those specimens which have been presented to the Museum have the name of the donor marked immediately after the habitat. When there is no such indication, the specimens have been either purchased or procured in exchange; and in this case, whenever the place or person from whom they have been received gives authenticity to the specimen, or adds anything of moment to their history, they are noted as being from such or such a collection or person.

Great care has been taken to use the generic and specific names first given to the group or species, and a reference has been made to the works in which the genera and species have been described and figured, and in most instances the dates of publication of the works referred to have been added.

I may here remark that the names quoted from the '*Schema Systematis*,' attached to Fitzinger's '*Systema Reptilium*,' 1843, 8vo, where the name and the type of each genus is given, are without characters, as the genera of lizards are alone characterized in that work. I have nevertheless used his name when I have considered it requisite to form a group of any of the types mentioned, rather than overburthen the science with other names. A list of the families and genera, but without the types and the subgenera and their types, which alone renders the list of any avail, is printed in *Duméril and Bibron's Erp. Générale*, vi. 61, 1844, as extracted from a MSS. work which they entitle '*Conspectus Systematis Ophidiorum*.'

I was not aware of Fitzinger's publication when the other part of this Catalogue was published, or I should have referred to it and used his names instead of the new ones I introduced.

To determine with accuracy the names and synonyms of the species, the Museums of Paris, Leyden, Berlin, Vienna, Francfort, and other large continental collections, have been personally examined. Many of the specimens in the Museum collection have been received from the original describers. So that there is every reason to believe they are named in perfect accordance with the various continental collections.

Mr. Mitchell, the Secretary of the Zoological Society, and Dr. Horsfield, of the East India Company's Museum, having kindly allowed me to compare the specimens in their Museums with those in the Museum collection, have rendered the series more complete, and enabled me to determine with certainty the synonyma of the typical specimens in these collections.

The specimens presented by
Sir Joseph Banks, Bart.,
Capt. White,
Patrick Russell, M.D., and
J. Weeks, Esq., may be regarded as the types of the species described by Dr. G. Shaw, in the *General Zoology* or *Zoological Miscellany.*
Andrew Smith, M.D., as the types of the African species described by this naturalist in his *Illustrations of the Zoology of South Africa.*
T. E. Bowditch, Esq., as the species described by Dr. W. Elford Leach, in Mr. Bowditch's *Ashantee.*
Charles Darwin, Esq., and
Capt. Fitzroy, R.N., as the types of the species described by Mr. Bell in the *Zoology of H.M.S. Beagle.*

M. De Blainville, as the types of the species described by that Professor in the *Nouveaux Memoires du Museum*.

M. Bibron, and

The Directors of the French Museum, as the types of the species described by MM. Dumeril and Bibron in their *Erpétologie Générale*.

The Hon. East India Company, as the types of the species described by Dr. Cantor, in his *Fauna of Chusan*.

The Admiralty,

B. Bynoe, Esq.,

Capt. C. Chambers, R.N.,

W. E. Cormack, Esq.,

Allan Cunningham, Esq., F.L.S.,

Earl of Derby,

C. D. E. Fortnum, Esq.,

J. Gould, Esq.,

Capt. G. Grey,

Lady Harvey,

James Hunter, Esq.,

Capt. P. P. King, R.N.,

Dr. F. Knox (from New Zealand),

G. F. More, Esq.,

Dr. Mair,

G. Newport, Esq.,

R. Owen, Esq.,

Sir John Richardson, M.D.,

W. Shuckard, Esq.,

Lieut. Alexander Smith, R.N.,

Capt. E. Stokes, R.N., and

Rev. W. Wilton, as the types of the Australasian species described by me in the *Proceedings of the Zoological Society*, the Appendices to *Capt. Grey's Australia*, *Jukes's Australia*, *Capt. L. Stokes's Australia*, and the *Zoology of H.M.S. Erebus and Terror*.

Miss Emilie Attersoll,

Professor Bonelli,

T. Brightwell, Esq.

James Burton, Jun., Esq.,

A. Christy, Esq.,

Sir Charles Fellowes,

Lieut. John Ince, R.N.,

M. Lefebvre,

Dr. W. E. Leach,

Mr. Leadbeater,

J. Miller, Esq., R.N.,

J. Ritchie, Esq.,

Edward Ruppell, M.D.,

Hon. Arthur Russell,

P. B. Webb, Esq., and

Sir J. G. Wilkinson, as illustrative of the species described as coming from Southern Europe, Northern Asia and N. Africa, by Professors Lichtenstein and Milne-Edwards, Dr. Ruppell, MM. Dugès, Audouin, Bibron, and other authors.

T. Bowditch, Esq.,

Col. Denham,

Earl of Derby,

A. Gerard, Esq.

John Lee, LL.D.,

A. MacLeay, Esq.,

Capt. Marryatt,

M. Petit,

W. Raddon, Esq., and

Dr. Stanger, as illustrative of the species found in Southern and Western Africa, and described by Dr. A. Smith, Dr. Burchell, and others ; and a small collection presented by myself, as illustrative of those found in the Island of Madagascar, and chiefly described by the French authors.

Sir John Barrow, Bart.,

Capt. Sir Edward Belcher (from Borneo),

Major Bevan,

J. Bowring, Esq. (Hong Kong),

Sir James Brooke.

W. Elliott, Esq. (Madras),

Gen. Thomas Hardwicke,

B. H. Hodgson, Esq. (Nepaul),

Thomas Horsfield, M.D.,

The Hon. East India Company,

Sir R. H. Inglis, Bart.,

Mrs. Kennaway,

Capt. Livesay,

J. Lindsay, Esq.,

Dr. Packman (Tenasserim),

J. Reeves, Esq. (China),

Rev. Gerard E. Smith,

Capt. Stafford,

Col. Stoddart (Ceylon), and

Col. Sykes, as illustrative of the Indian, Chinese, Bornean, and other Asiatic species, described by me in the *Illustrations of Indian Zoology*, the *Zoological Journal*, and other papers.

Edward Doubleday, Esq.,

Richard Harlan, M.D.,

Jacob Green, M.D.,

Dr. Macaulay, and

W. Ogilby, Esq., as illustrative of the North American species described by Say, Harlan, Green, Holbrook, and other American authors.

Capt. Sir Edward Belcher (from Rio),

Thomas Bell, Esq. (W. Indies),

Sir Wm. Burnett, R.N.,

E. Cooke, Esq.,

J. Cottle, Esq. (W. Indies),

Edw. Cross, Esq.,

Lady Essex (Demerara),

Dr. Hancock (Demerara),

R. Heward, Esq. (W. Indies),

Mr. Ker (Bahia),

Edward Laforest, Esq.,

A. Ludlam, Esq.,

Sir James Macgrigor,

W. S. Mac Leay, Esq. (Cuba),

Mrs. Parker (Para),

Col. Edw. Sabine, R.E. (Demerara),

J. P. Geo. Smith, Esq. and *Mrs. Smith* (N. Brazil),

Lord Stuart de Rothesay (Brazil),

J. E. Winterbottom, Esq. (W. Indies), and

J. Wright, Esq., as the illustrations of the species from Tropical and South America and the West Indies, described by Sir Hans Sloane, Browne, Wagler, Spix, Gravenhorst, Guilding, and others.

The specimens purchased or procured in exchange from *The Leyden Museum*, as the types of the species described and figured by Dr. Schlegel, in his *Fauna of Japan* and in his *Abbildungen*, and by Dr. S. Muller, in his work on the *Reptiles of New Guinea, Borneo, &c.*

The South African Museum, as the types of the species described by Dr. A. Smith, in his *Illustrations of the Zoology of South Africa*.

M. Brandt's Collection, as the types of the species described by Pallas, Eversmann, and other Russian naturalists.

JOHN EDWARD GRAY.

British Museum,
October 1, 1849.

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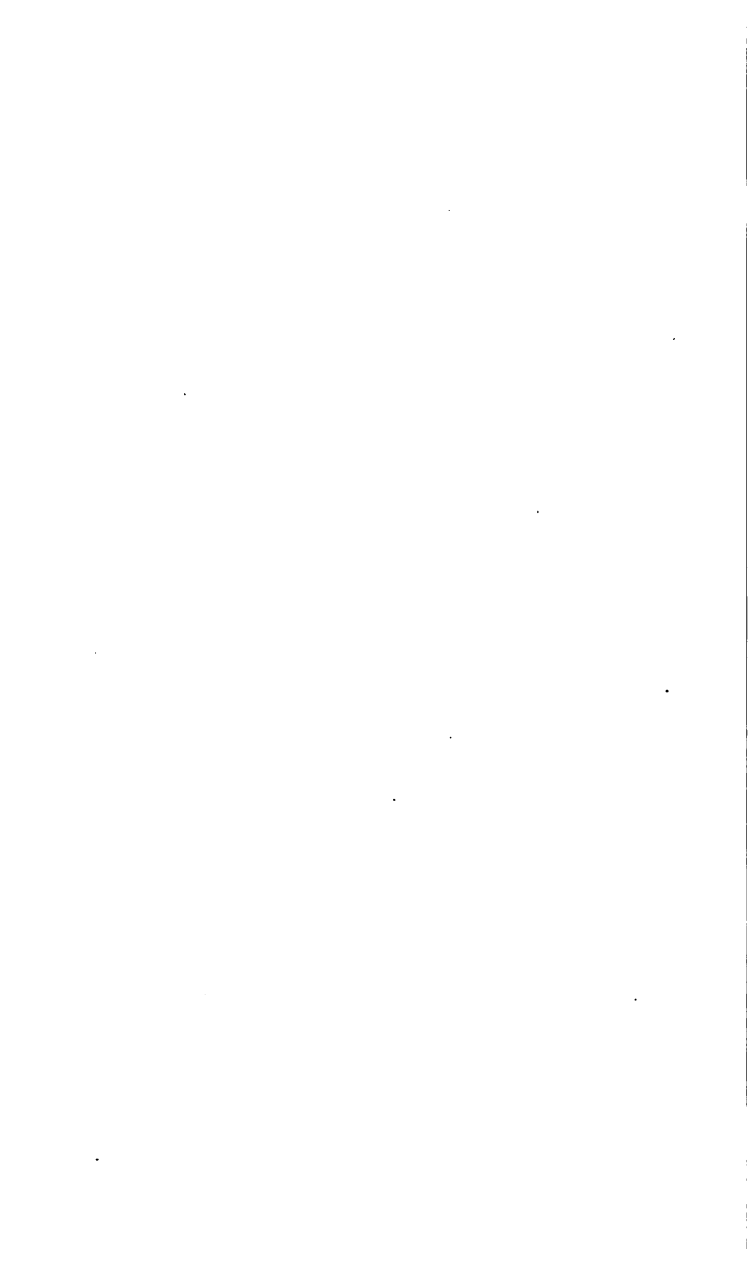
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SYNOPTIC CATALOGUE

OF

REPTILES.

Order II. SNAKES (OPHIDIA).

Mouth dilatable, all the facial bones moveable. Jaws toothed: lower jaw-bones only united by ligaments in front. Eyes without eyelids. External ears none. Tongue very long, retractile into a sheath at its base; the apex forked, very long, slender, tapering. Limbs none or only rudimentary, in the form of spurs on the side of the vent. (See *Meyer, Acta Acad. Nat. Cur.* xii.) The body of each vertebra articulated by a convex facet, fitting into a concavity in the front of the following one. The palatine arches mobile and armed with acute recurved teeth. The windpipe is very long. One of the lungs very large; the other very small or rudimentary. The heart in the hinder part of the body. The mastoid bone is detached in all except the genus *Tortrix* of Oppell.

Ophidia, *Rafin. Anal. Nat.* 76, 1815. Ophidii pars, *Oppell, Rept.* 47. Ophidii, *Gray, Ann. Phil.* 1825, 204. Serpents proprement dit, *Cuvier, R. A.* ii. 60; *ed.* 2, ii. 7, 74. Serpentina gulones, *Merrem, Tent.* 81. Ophidi, § 2, *Bibron*. Serpentes Theciglossi, *Wagler, Syst. Amph.* 165.

Synopsis of the Families.

Sub-order I. VIPERINE. *Jaws weak; upper toothless, with fangs in front; lower toothed. Ventral shields broad, band-like. Head large behind; crown flat, generally covered with scales, rarely with shields. Hinder limbs not developed. Eyes lateral. Nostrils apical, lateral.*

1. CROTALIDÆ. Face with a large pit on each side, placed between the eye and the nostril.
2. VIPERIDÆ. Face without any pit on the cheek.

Sub-order I. COLUBRINE. *Jaws strong, both toothed, sometimes with some fangs in front or grooved teeth behind. Head moderate or indistinct; crown often covered with regular shields.*

Sect. I. *Belly covered with narrow, elongate shields or scales, nearly resembling those of the back.*

3. HYDRIDÆ. Vent without any spurs like rudimentary feet. Nostrils superior, valvular. Eyes superior; pupil round. Tail often compressed. Belly covered with narrow shields or with scales like those of the back, the central series sometimes united together in pairs, forming a narrow 6-sided shield.
4. BOIDÆ. Vent with spur-like rudimentary feet on each side. Eyes and nostrils lateral. Tail conical, generally prehensile. Ventral shield narrow, transverse, band-like.

Sect. II. *Belly covered with broad, band-like shields. Vent without any spur-like feet. Tail conical, tapering.*

5. COLUBRIDÆ. Nostrils apical, lateral, open. Head generally shielded.

Sub-order I. VIPERINE. VIPERINA.

Jaws weak ; upper jaw toothless, with large fangs in front ; lower toothed. Ventral shields broad, band-like. Head large behind ; crown flat, generally covered with scales, rarely with shields. Hinder limbs not developed. Eyes lateral. Nostrils lateral, apical, open.

Viperina, Rafin. *Anal. Nat.* 77, 1815. Les serpents vénéneux par excellence ou à crochet isolés, *Cuvier*, *R. A.* ii. 75, 1817. Serpentina Gulones venenati, *Merrem*, *Tent.* 141, 1820. Les Serpents Vénéneux proprement dit, *Schlegel*, *Phys. Serp.* 520. Macrostromata Holochilina, *Muller*, *Zeitsch. f. Phys.* iv. 263. S. Chondropodes ou apodes, *Meyer*. S. Chalinophidia pars, *Fitz. Syst. Oph.* Ophidiens Thanatophides, *Dum. & Bib. Erp. Gen.* vi. 71, 1846. Ophidii venati, *Gray*, *Ann. Phil.* 1825, 204.

Fam. I. RATTLE-SNAKES (CROTALIDÆ).

Face with a large pit on each side, placed between the eye and the nostril. The head large behind, crown flat, covered with scales or small shields (except *Sepedon* and *Caudisona*) ; the jaws weak, the upper with long fangs in front and no teeth. The belly covered with broad band-like shields : anal spurs none. Venomous. Viviparous.

Synon.—*Crotalina*, *Oppell*, 1811. *Crotaloidea*, *Fitz. N. Class. Rept.* ii. 62, 1826. *Bothropsis*, *Fitz. Syst. Oph.* 1846. *Crotalidæ*, *Gray*, *Zool. Misc.* 47, 1842. *Cophiadæ*, *Boie*, *Isis*, xx. 510, 1827. *Crotalidæ* & *Viperidæ* pars, *Gray*, *Ann. Phil.* 1825, 204.

Synopsis of the Genera.

A. Head covered with scales, having small shields on the edge of the forehead and eyebrows ; tail ending in a spine ; cheeks scaly.

a. Subcaudal plates two-rowed to the tip. *Craspedocephalina*.

1. *CRASPEDOCEPHALUS*. Superciliary shield single, hinder labial shields large ; scales lanceolate, keeled. America.
2. *TRIMESURUS*. Superciliary shield single, hinder labial shields smallest ; scales lanceolate, keeled. Asia.

3. **PARIAS.** Superciliary shield single, hinder labial shields smallest; scales lanceolate, of head and body smooth, of crown unequal. Asia.
4. **MEGÆRA.** Superciliary shield double, hinder labial shields smallest; scales lanceolate, of head and body smooth. Asia.
5. **ATROPOS.** Superciliary shields many, forming a prominent arched series. Asia.

b. *Subcaudal plates four-rowed at the tip.* America. *Lachesisina.*

6. **LACHESIS.** Head ovate; crown scaly.

B. Head more or less shielded.

c. *Subcaudal plates two-rowed; tail ending in a spine; cheeks not scaly; head-shields with some additional plates in front.* *Trigonocephalina.*

7. **TRIGONOCEPHALUS.** Dorsal scales keeled.

d. *Subcaudal plates one-rowed; tail ending in a spine; cheeks not scaly; head shielded.* America. *Cenchrina.*

8. **CENCHRIS.**

e. *Subcaudal plates one-rowed; tail ending in a rattle; cheeks scaly; head more or less shielded.* America. *Crotalina.*

9. **CROTALOPHORUS.** Head with nine large shields extending behind the eyes.
10. **UROPSOPHUS.** Head with scales behind; temporal scales and labial shield moderate.
11. **CROTALUS.** Head with scales behind; temporal scales and labial shields very small, convex.

I. Head scaly, with small shields on the edge of the forehead and eyebrows; tail ending in a spine; cheeks scaly.

a. *Subcaudal plates two-rowed to the tip* (*Craspedocephalina*).

1. CRASPEDOCEPHALUS.

Scales lanceolate, keeled: hinder labial shields largest. Confined to the New World.

Synon.—*Craspedocephalus* sp., *Kuhl*, 18. *Fitz. N. Class. Rept.* 62, 1826. *Bothrops*, Sect. I., *Wagler, Serp. Braz.* 50. *Amph.* 174, 1830. *Bothrops*, *Gray, Zool. Misc.* 47, 1842. *Trigonocephalus* sp., *Oppell, Rept.* 65. *Schlegel, P. S.* 527. *Vipera* sp., *Merrem, Tent.* 154. *Gray, Ann. Phil.* 1825. *Anatomy, Schlegel, P. S.* 535. *Meekel, Arch. i. t. 1, f. 1.* *Duvernoy, Ann. Sci. Nat.* xxvi. t. 10, f. 6; xxx. t. 14.

The species of this genus are very difficult to separate, especially when they have been kept in spirits for some time. In the 'Zoological Miscellany' I attempted to divide them by the form of the second labial shield and head-shield, but these characters appear to vary with the individual specimens.

* *Body olive or gray; labial plates 9 or 10 on each side, the 3 or 4 hinder ones smaller.*

1. The JARARACA. *Craspedocephalus Brasiliensis*. *La Brasilienne, Lacep. Quad. Ovip.* ii. 119, t. 4, f. 1. *Vipera Brasiliensis, Latr. Rept.* iv. 7. *Cophias Jararaca, Neuwied, Beitr.* 468. *Abbild.* viii. t. 5. *C. atrox, Neuwied, Abbild.* vii. t. 3. *Bothrops Megæra, Wagler, Serp. Braz.* t. 19. *B. leucostigma, Wagler, S. B.* t. 21, f. 1. *B. furia, Wagler, S. B.* t. 20. *B. tessellatus, Wagler, S. B.* t. 21, f. 2. *B. tæniatus, Wagler, S. B.* t. 21, f. 3. *Trigonocephalus Jararaca, Schlegel, Phys. Serp.* 532, t. 19, f. 1, 2. *Crasp. Jararaca, Fitz. N. Class. Rept.* 62.

Dark olive-yellow and pale olive marbled; beneath yellow, olive marbled: head with symmetrical yellow lines: upper labial shields 10; the anterior upper lateral plate large; the second small; the third, fourth and fifth large, yellow; the seventh, eighth, ninth and tenth smaller, olive; the anterior lower labial shield yellow, varied with a narrow yellow streak on the temple from the back edge of the eye.

a and *b*. In spirits. Adult. Brazil.

2. The FER DE LANCE. *Craspedocephalus lanceolatus, Fitz. N. Class. Rept.* 62. *Trigonocephalus lanceolatus, Oppell, Rept.* 66. *Schlegel, P. S.* 537, t. 19, f. 3, 4. *Vipera cærulescens, Laur. Syn.* 101. *Coluber glaucus, Gmelin, S. N.* i. 1092. *Le fer de lance, Lacep.* 20, ii. 121, t. 5, f. 1. *Duvernoy, Ann. Sci. Nat.* xxvi. t. 10, f. 6, and xxx. t. 14. *Coluber Megæra, Shaw, Zool.* iii. 406. *Cophias lanceolatus, Merrem, Tent.* 15. *Trigonocephale des Antilles, Moreau de St. Jones.*

Olive, darker cross-banded, beneath whitish, very minutely punctated; scales narrow, strongly keeled: head brown: upper labial shields 8, the two or three hinder ones smaller than the middle

ones; upper and lower labial shields, the chin and beneath white; temple streak a broad dash extending across the upper part of the fifth, sixth and seventh upper labial shields.

a. In spirits. Half grown. Brazil. Presented by Lord Stuart de Rothsay.

b. In spirits. Male, adult. Brazil. Presented by Lord Stuart de Rothsay.

c. In spirits. Half grown. Brazil. Presented by Lord Stuart de Rothsay.

d, e. In spirits. Half grown? Jamaica? Rev. Lansdown Guilding's collection.

Trigonocephalus lanceolatus, *Guilding MSS.*

f. In spirits. Young. W. Indies, St. Lucia. Presented by Miss Alexander.

g. In spirits. Young, not good state. Demerara. Presented by Dr. Hancock.

h. In spirits. Half grown, not good state. S. America. Presented by Miss Bancroft.

** *Body olive or gray; the 1st and 2nd upper labial shields moderate, the remainder (3rd to 7th) large and subequal.*

3. The ATROX. *Craspedocephalus atrox*, *Fitz. N. Class. Rept.*

61. *Trigonocephalus atrox*, *Gray, Ann. Phil.* 1825. *Schlegel, P. S.* 535, t. 19, f. 5, 6. *Col. atrox*, *Linn. Mus. Adol. t.* 22, f. 2. *Vipera atrox*, *Laur.* 103. *Latr. Rept. iv.* 4, fig. . *Cophias atrox*, *Merrem, Tent.* 154. *Bothrops Neuwildii*, *Wagler, Serp. Braz. t.* 22, f. 1. *B. leucurus*, *Wagler, Scop. Braz. t.* 22, f. 2, very young.

Olive, darker varied: head dark; side of face, legs and beneath white; temporal streak dark, oblique, extended across the upper edge of the last labial shields.

a, b. In spirits. Adult and young. Mexico. From Mr. Warwick's collection.

c—e. In spirits. Adult. Mexico. From Mr. Wego Tincker's collection.

f—h. In spirits. Adult and young. Demerara. Presented by Colonel Sabine, R.E.

Bothrops Sabini, *Gray, Zool. Misc.* 47.

i. In spirits. Adult. Barbice. Presented by Colonel Sabine, R.E. *Bothrops subscutatus*, *Gray, Zool. Misc.* 47.

j. In spirits. Adult. S. America.

Bothrops Megæra, *Gray, Zool. Misc.* 47.

k. In spirits. Half grown. S. America. Presented by A. Mac Leay, Esq.

Bothrops cinereus, *Gray, B. M. Zool. Misc.*

Var. 1. Like the preceding, but the upper and lower lips are dark, being very closely and minutely punctulated.

Bothrops affinis, Gray, *Brit. Mus.* 1848.

l. In spirits. Half grown. Berbice. Presented by Lady Essex.

m, n. In spirits. Young. Tropical America.

o. In spirits. Young. Demerara. Presented by Lieut. Friend, R.N.

p. In spirits. Young. Tropical America.

4. The ELEGANT FER DE LANCE. *Craspedocephalus elegans*.

Pale brown: back with a central series of oblong spots, and a series of small round spots on each side: head brown; crown with a dark streak on each side of the back of the neck; temple, side of face, the lips and under part pale, minutely punctulated; temporal streak narrow, oblique, extending across the upper half of the series of scales above the hinder upper labial shields.

a, b. In spirits. Adult and young. West coast of (North?) America? Presented by Capt. Sir Edward Belcher, C.B., R.N.

*** *Green, with yellow lateral streak.*

5. The GREEN FER DE LANCE. *Craspedocephalus bilineatus*.

Trigonocephalus bilineatus, Schlegel, *R. S.* ii. 540, t. 19, f. 7, 8. *Cophias bilineatus*, Pr. Max. *Beytr.* 37, 483. *Abbild.* v. t. 6.

Green-brown, varied beneath yellowish, compressed: scale very small, lanceolate, keeled, with a yellow line on the lower part of each side: lips yellow: temporal streak reddish: upper labial shields 7, the hinder one smaller than the lateral ones.

Inhab. Brazils.

2. TRIMESURUS.

Scales lanceolate, keeled: hinder labial shields small; head-scales convex or keeled; superciliary shield single, half-ovate or linear. Confined to the Old World. Asia.

Trimesurus, Gray, *Zool. Misc.* 48, 1842. *Trimesurus* sp., *Lacep. Ann. Mus.* iv. *Bothrops*, Sect. II., *Wagler, Amph.* 174, 1830. *Tropidolæmus*, *Wagler, Amph.* 175, 1830.

* *Second labial plate very high, forming the front of the suborbital pit: back uniform, with a white line on each side.* *Trimesurus*.

† *Superciliary shield half-ovate.*

1. The GREEN TRIMESURUS. *Trimesurus viridis*, *Lacep. Ann. Mus.* iv. 19. Gray, *Zool. Misc.* 48. *Cophias viridis*, *Merrem*,

Tent. 155. *Vipera viridis*, *Daud. Rept.* vi. 112. Bodroo Pam, *Russell, Ind. Serp.* i. t. 97, t. 20. *Coluber gramineus*, *Shaw, Zool.* iii. 420. *Trigonocephalus viridis*, *Schlegel, P. S.* 554, t. 19, f. 12, 13. *Voy. Coq.* ii. 2, 18.

Head-shields smooth; scales of the body obscurely keeled.

- a. In spirits. Half grown. India.
- b. In spirits. Adult. India.
- c, d. Young and very young. Afghanistan.

†† *Superciliary shield linear, rudimentary.*

2. The WHITE-LIPPED TRIMESURUS. *Trimesurus albolabris*, *Gray, Zool. Misc.* 48.

Green; upper and lower lip, the upper part of the supra-abdominal row of scales, and the lower edge of the row above them, white: belly yellowish green, bluish on the sides: head-shields smooth, convex; scales obscurely keeled.

- a. In spirits. Adult? China. Presented by John Reeves, Esq.
- b. In spirits. Younger. China. Presented by John Reeves, Esq.

3. The KEELED TRIMESURUS. *Trimesurus carinatus*, *Gray, Zool. Misc.* 48.

Green? scales large, strongly keeled, the supra-abdominal series with a white central streak; head-shields convex, rounded.

- a. In spirits. Young. India. Presented by James Inskip, Esq.

4. The PURPLE TRIMESURUS. *Trimesurus purpureus*, *Gray, Zool. Misc.* 48. *Trigonocephalus purpureo-maculatus*, *Gray, Illust. Ind. Zool. t.* . *Trig. Wagleri*, var., *Schlegel, P. S.* 543.

Purple (in spirits red-brown); lateral streak and beneath whitish; head-shield convex, smooth.

- a. In spirits. Adult. Singapore. Presented by General Hardwicke.

** *The second labial plate much smaller than the third, with a square shield above it, which forms the front edge of the suborbital pit: head large: back spotted or banded, without any continued pale lateral line.* *Tropidolæmus*, *Wagler.*

5. The SPOTTED TRIMESURUS. *Trimesurus maculatus*, *Gray, Zool. Misc.* 48.

Green, with a series of small, distant, brown-backed spots on

each side; temporal streaks, upper white, lower red: head-shields keeled: end of tail rufous, curled.

a. In spirits. Adult. Singapore. Presented by General Hardwicke.

b. In spirits. Adult. Borneo. Presented by J. Brooks, Esq.

c, d. In spirits. Adult. Borneo. From Mr. Lowe's collection.

e. In spirits. Adult. Borneo. Presented by Capt. Sir Edward Belcher, K.C.B., R.N.

Var. 1. The spots elongate, transverse, forming a series of narrow cross lines on each side, edged with brown behind.

f. In spirits. Young. Singapore. Presented by General Hardwicke.

6. The NARROW-RINGED TRIMESURUS. *Trimesurus subannulatus*, Gray, *Zool. Misc.* 48. *Trigonocephalus Wagleri*, var., *Mus. Leyden*.

Green, with a series of distant, narrow, white cross bands, edged with black in front, and ending in a spot at the side of the abdomen: occiput with two black spots: temple with superior white and inferior black streaks: abdomen whitish, hinder part with a few black spots: end of tail green, black and white ringed: head-shields keeled.

Var. ? Young, the white bands varied with brown in front, and the spots on the side and hinder part of the belly brown; tail dark red-brown.

a. In spirits. Adult. Philippines. From Mr. Cuming's collection.

b. In spirits. Half grown, injured. Philippines. From Mr. Cuming's collection.

c. In spirits. Half grown. Philippines. From Mr. Cuming's collection.

Var. Cross bands shorter and sometimes roundish, spot-like, without any dark front edge.

Trim. maculatus, var. 1, Gray, *Zool. Misc.* 48.

d. In spirits. Adult. Celebes. From the Leyden Museum. Head green, not spotted; no spot on side of abdomen.

Trigonocephalus Wagleri, var. *Celebensis*, *Mus. Leyden*.

e. In spirits. Adult, not good state. Sumatra. From the Leyden Museum. Head green, black varied; no spot on side of abdomen.

Trigonocephalus Wagleri, var. *Sumatrenis*, *Mus. Leyd*.

7. The PHILIPPINE TRIMESURUS. *Trimesurus Philippensis*, Gray, *Zool. Misc.* 48.

Green, with a series of black spots on each side of the back; lips and beneath yellow, with distant, small, black spots on each side, near the edge of the abdominal plates: temporal streak blackish: tail black-banded, end red, compressed and curved; head-shields keeled.

a. In spirits. Adult? Philippines. From Mr. Cuming's collection.

8. The STRIGATED TRIMESURUS. *Trimesurus strigatus*, Gray, *Zool. Misc.* 48.

Olive, with large dark spots on the back; crown with two white spots on the hinder part, with a broad streak from the back of the eyes and two triangular bands on the white upper lip; beneath white, marbled with dark olive.

Inhabits Cape of Good Hope? Madras? Mus. Army Med. Board, Chatham.

9. The SUMATRAN TRIMESURUS. *Trimesurus Sumatranus*, Gray, *Zool. Misc.* 48. *Coluber Sumatranus*, *Raffles, Linn. Trans.* xiii. 334. *Trigonocephalus ornatus*, Gray, *MSS. B. M.* T. Wagleri, *Schlegel, P. S.* 542, t. 19, f. 16, 18. *Cophias Wagleri*, *Boie, Erp. Java*, t. 49. *Isis*, 1827, 561. *Seba*, ii. t. 68, f. 4. *Tropidolæmus Sumatranus*, *Wagler, Syst.* 175.

Black; dorsal scales marked with a yellow or greenish spot; lateral scales yellow, black edged; lips and throat orange; head-shields keeled.

a. In spirits. Adult. Singapore. Presented by General Hardwicke.

b. In spirits. Adult. Penang. From Capt. Hay's collection.

10. MULLER'S TRIMESURUS. *Trimesurus formosus*. *Trigonocephalus formosus*, *Muller, Vert. Rept. t.* 7.

Yellow; scales green edged; back with black crosslace; crown green, yellow varied; lips and beneath yellow, scales black edged; tail red, with black bands.

Inhab. ———? *Muller*.

Var. 1. Tail dark, yellow varied.

a, b. In spirits. Adult. Borneo. Presented by James Brooks, Esq.

c. In spirits. Adult. Borneo. From Mr. Lowe's collection.

d. In spirits. Adult. Borneo. Presented by Capt. Sir Edward Belcher, K.C.B., R.N.

11. The CEYLON TRIMESURUS. *Trimesurus? Ceylonensis*, Gray, *Zool. Misc.* 48.

Olive, with dark spots and marks, and a white streak from the back edge of the eye on each side of the neck.

Inhabits Ceylon. Mus. Army Med. Board, Chatham.

3. PARIAS.

Superciliary shields single; hinder labial shields smallest; scales lanceolate, of head and body smooth, of crown unequal; tail ending in a rather large impressed claw. Asia.

Megæra, § 2, Gray, *Zool. Misc.* 48.

1. The YELLOW-SPOTTED PARIAS. *Parias flavomaculatus*. *Megæra flavomaculatus*, Gray, *Zool. Misc.* 49.

Olive-green, nearly uniform (in spirits); beneath paler, varied with yellow; chin yellow, varied; sides with a series of large orange-yellow spots on the lowest series of scales; tail brown-banded; head-shield large.

a, b. Philippine Islands. Purchased of Mr. Cuming.

Var.? Young? green (in spirits), with close white spots forming nearly a continued band on each side. Smaller.

2. The ORNAMENTED PARIAS. *Parias ornata*. *Megæra ornata*, Gray, *Zool. Misc.* 49.

Olive-green (in spirits); back with a series of irregular brown spots forming a band across the tail; sides of the body with a lower series of brown and an upper of white spots, forming together a broad band: beneath paler green; chin whitish green.

a. In spirits. Philippine Islands. Purchased of Mr. Cuming.

3. The VARIEGATED PARIAS. *Parias variegata*. *Megæra variegata*, Gray, *Zool. Misc.* 50.

Green (in spirits); head black varied; back with rather narrow black cross bands; sides with an interrupted series of indistinct yellow spots; beneath rather paler: tail yellow, black-banded, compressed.

a. In spirits. Philippine Islands.

4. MEGÆRA.

Superciliary shield double; scales lanceolate, of head and body smooth, of crown unequal; forehead edged with shields; hinder

labial plates small; tail with a rather large, compressed, curved, terminal claw; pupil oblong, erect. Asia and Africa?

Megæra, *Wagler*, *Amph.* 174, 1830. *Megæra*, *Sect. I.*, *Gray*, *Zool. Misc.* 49, 1840.

1. The GREEN MEGÆRA. *Megæra trigonocephala*, *Wagler*, *Syst.* 174. *Gray*, *Zool. Misc.* 49. *Vipera trigonocephala*, *Latr. Laccp.* iii. 332. *Daud. Rept. Scheuch. P. S. t.* 749, *f.* 11. *Laccp.* 20, ii. *t.* 5, *f.* 2. *Cophias trigonocephalus*, *Merrem, Tent.* *Cophias nigromarginatus*, *Kuhl, Beytr.* 90. *Trigonocephalus nigromarginatus*, *Schlegel*, 541, *t.* 19, *f.* 14, 15. *La tete triangulaire*, *Laccp.* 20, ii. 132, *t.* 5, *f.* 2. *Trimesurus marmoratus*, *Gray, MSS. B. M.*

Glaucous green, paler beneath; upper part of head with regular black markings; middle of the back marbled with black; lips, chin and front of belly white: head-shields flat, smooth; lip with two black streaks under the nose and eyes; end of tail blackish.

Var. 1. Crown of head green, with symmetrical black marks.

a. In spirits. Half grown. S. Africa? Presented by Sir James M'Gregor.

b, c. In spirits. Adult and young. S. Africa? From Mr. Warwick's collection.

d, e. In spirits. Half grown and young. Ceylon. Presented by R. Templeton, Esq.

Var. 2. Crown of head green, with black edge to the scales.

f, g. In spirits. Adult and half grown. Ceylon. Presented by R. Templeton, M.D., R.E.

2. The OLIVE MEGÆRA. *Megæra olivacea*, *Gray, Zool. Misc.* 49. *Vipera olivacea*, *E. W. Gray, MSS.* 1800, in *Brit. Mus. fide Shaw*. Col. olivaceus, *Shaw, Zool.* *Parias olivacea*, *Gray, MSS.* 1830.

Yellow-olive, with a brown horizontal streak on each side of the back of the head; lips and beneath yellow; superciliary shields 2, large, square.

a, b. Adult. In spirits, rather discoloured. In the old collection named by Dr. Gray and Dr. Shaw.

5. ATROPOS.

Vertebral scales keeled, lateral ones smooth; superciliary scales small, in a prominent arched series: hinder labial shields small; head-scales convex or keeled. Asia.

Atropos, *Wagler, Syst. Amph.* 175, 1830. *Gray, Zool. Misc.* 49, 1840. *Craspedocephalus* sp., *Fitz. N. S. Rept.* 62, 1826.

1. The **ATROPOS**. *Atropos acontia*, Gray, *Zool. Misc.* 49. *Atropos puniceus*, Wagler, *Amph.* 175. *Trigonocephalus puniceus*, Reinw. *Isis*, 1827, 561. Schlegel, *Phys. Serp.* 545, t. 19, f. 10, 11. *Abbild.* 118, t. 38, animal and skull. *Coluber acontia*, Gmelin, *S. N.* 1093. *Echidna acontia*, Merrem, *Tent.* 151. *Seba*, ii. 64, f. 1.

Red-brown, minutely black dotted; paler beneath; tail generally darker; temple with a dark-edged, narrow white streak from back of eyes.

a. In spirits. Java. From Mus. Leyden.

b. In spirits. Young. Borneo. From Mr. Lowe's collection.

b. *End of tail with four rows of scales beneath.* America. *Lachesina*.

6. LACHESIS.

Head ovate, crown scaly: scales keeled; subcaudal plates two rowed, and with four rows of scales under the tip, ending in a spine.

Lachesis, Daud. Wagler, *Syst. Amph.* 175. Gray, *Zool. Misc.* 50. *Bothrops* sp., Wagler, *Serp. Braz.* *Craspedocephalus*, Gray, *Ann. Phil.* 1825, 205.

1. The **CURUCUCU**. *Lachesis mutus*, Daud. *Rept.* v. 351. Gray, *Zool. Misc.* 50. *L. rhombeta*, Fitz. *N. Class.* 63. *Neuw. Abbild.* i. t. 5. *Bothrops Curucucu*, Wagler, *Serp. Braz.* t. 23 (bad). *Crotalus mutus*, Linn. *S. N.* 273. *Seba*, *Thes.* ii. t. 76, f. 1, t. 91, 92. Schlegel, *P. S.* 570, t. 20, f. 19, 20. *Boa muta* (Le muet), Lacep. 2 a, ii. 389. *B. crotalina*, Shaw, *Z.* iii. 352. *Cophias crotalina*, Merrem, *Tent.* 154. *Scytale catenatus*, Laur. iii. 162. *S. Ammodytes*, Latr. iii. 162. *Seba*, ii. t. 76, f. 1. *Coluber alecto*, Shaw, *Zool.* iii. 400. *Trigonocephalus rhombifer*, Cuv. *R. A.* ii. 90. *Crasp. Crotalinus*, Gray, *Ann. Phil.* 1825, 205.

Pale brown; back with oblique black cross-band.

a. Adult. In spirits. S. America. Demerara? Presented by Colonel Edward Sabine, R.E.

b—d. Adult. In spirits. Mexico. From Mr. Hugo Finch's collection.

e. Adult. Stuffed. Brazils. Presented by Mrs. Parker.

2. The **PERUVIAN CURUCUCU**. *Lachesis pictus*, Tschudi, *Rept. Consp.* 166.

Gray-brown, with violet-black, roundish, irregular spots, confluent on the hinder part of the body; sides with small white spots;

beneath whitish; shields $172 + 74$. Length 23 inches. Inhab. Peru.

Mus. Berlin.

II. Head more or less shielded.

- a. Subcaudal plates two-rowed; tail ending in a spine; cheeks not scaly; head-shield with some small additional plates in front. Asia. *Trigonocephalina*.

7. TRIGONOCEPHALUS.

Crown with large subnormal shield; dorsal scales keeled.

Trigonocephalus, Boie, 1827, 561. Fitz. 1826. *Wagler, Amph.* 173, 1830. *Trigalus*, Rafin. A. N. 77. ANAT., *Schlegel, Nova Act. Leopold. N. C.* xiv. t. 16, f. 4, 59, and *Phys. Serp.* 548.

* End of nose shielded in front.

† Head moderate. Halys.

1. The HALYS. *Trigonocephalus Halys*, Boie, *Isis*, 1827, 568. *Wagler, Amph.* 174. *Schlegel, P. S.* ii. 552, t. 20, f. 4, 5. *Gray, Zool. Misc.* 50. *Licht. Eichw. Faun. Casp.* 102, t. 19, f. 1, 2. *Coluber Halys*, Pallas, *Russ.* iii. App. 14. *Eversm. Reise.* 146. *Licht. Cat.* 106. Col. Aspis? *E. W. Gray, MSS. Brit. Mus.* 1800, fide Shaw. *Echidna Aspis*, var. *Pallasii*, Merrem, *Tent.* 151.

a, b. In spirits; rather discoloured. Tartary?

2. The WHITE-LIPPED HALYS. *Trigonocephalus affinis*.

Olive, marbled with brown, with a series of brown spots on the lower part of the sides; head moderate, triangular; scales all elongate, keeled; temporal streak broad, dark; lips white.

a. In spirits; not good state. ———? Presented by Capt. Sir Edward Belcher.

3. BLOMHOFF'S HALYS. *Trigonocephalus Blomhoffii*, Boie, *Isis*, 1826, 214. *Wagler, Amph.* 174. *Schlegel, Phys. Serp.* ii. 552, t. 20, f. 8, 9. *Faun. Japon.* t. 6.

Brown, darker varied and spotted; temple with a broad dark streak from the back of the eye.

a. In spirits. Japan. From the Leyden Museum.

†† *Head large, triangular, cordate.* *Trigonocephalus.*

4. The OULAE DONDA. *Trigonocephalus rhodostoma*, *Reinw. Isis*, 1827, 561. *Wagler, Amph.* 174. *Schlegel, P. S.* ii. 547, t. 20, f. 1—3. *Abbild.* 19, t. 19, animal and skull. *Nova Act. N. C.* xiv. t. 16, f. 4—9, skull. *Seba*, ii. t. 68, f. 6, young (bad). *Coluber*, No. 21, *Russell, Ind. Serp.* ii. t. 21 (good). *Vipera prætextata*, *Gravenh.* *Trigonocephalus prætextatus*, *Hemprich. Fitz. N. Class.* 62.

Red-brown, with rhombic spots; sides brown, spotted; beneath white: head large, triangular; crown flat, with a dark-edged whitish streak on each side.

a. In spirits. Java. From the Leyden Museum.

** *End of nose with small scales in front.* *Hypnale.*

5. The CARAWILLA. *Trigonocephalus Hypnale*, *Wagler, Syst.* 174. *Schlegel, P. S.* ii. 550, t. 20, f. 6, 7. *Cophias Hypnale*, *Merrem, Tent.* 155. *Coluber Nepa*, *Laur. Syn.* 97. *Seba, Thes.* i. t. 19, f. 7; ii. t. 55, f. 1 and 4. *Scheuch. P. S.* t. 749, f. 11. *Carawilla*, *Davy, Ceylon*, 85, t. 2, f. 1. *Cop., Russell. Ind. Serp.* ii. t. 22 (var. muzzle blunt). *Trimesurus?* *Ceylonensis*, *Gray, Zool. Misc.* 48.

Scales keeled; lips brown, white spotted: brown, sides darker and varied; tail brown, cross-banded: head brown, marbled with a broad white streak on each side, extending down the back of the neck, which is streaked with brown; nose more or less produced, ("upper surface covered with small scale-like shields." *Schlegel.*)

a. In spirits. Ceylon. Presented by R. Templeton, Esq.

6. The ZARA. *Trigonocephalus Zara.*

Brown; slightly brown varied, minutely punctated below; side of the neck dark brown, white varied: head with a narrow white streak on the upper part of the temple, and a broader white streak on the lower side of the neck; lips brown, with one or two small white spots behind.

a. In spirits. Singapore. From Mr. Argent's collection.

b. *Subcaudal plates one-rowed; tail ending in a spine; head shielded.*
America. *Cenchrina.*

8. CENCHRIS.

Head shielded; tail ending in a spine; subcaudal plate entire, one-rowed.

Cenchris, *Daud. Rept.* viii. 388. *Gray, Ann. Phil.* 1825. *Wagler, Amph.* 175, 1830. *Boie, Isis*, 1827, 562, not *Linn.* *Angkistrodon*, *Beauv. Trans. Amer. Phil. Soc.* iv. 370. *Tisiphone*, *Fitz. N. Class.* 63, 1826. *Peleas* sp., *Merrem, Tent.* 149. *Trigonocephalus*, *Holbrook, N. A. Erp.* iii. 33, 1840. *Toxicophis*, *Troost, Ann. Lyc. N. H. New York*, iii. 176.

Holbrook described *C. contortrix* and *C. atrofuscus* as having smooth scales on the back of the head, and *C. piscivorus* as having keeled ones.

1. The COPPER-HEAD. *Cenchris contortrix*, *Gray, Ann. Phil. Zool. Misc.* 50. *Cen. Mokeson*, *Daud. t.* 70, *f.* 3, 4; *t.* 60, *f.* 25. *Wagler, Amph.* 175. *Harlan, Med. Phys. Res.* 128. *C. marmorata*, *Boie, MSS. Isis*, 1827, 562. *Boa contortrix*, *Linn. S. N.* 373. *Coluber contortrix*, *Linn. S. N. ed.* 10, 216. *Heterodon contortrix*, *Cuv. R. A.* *Trigonocephalus contortrix*, *Holbrook, N. Amer. Erp. t.* 14. *C. Cacodæmon*, *Shaw, Zool.* iii. 377. *Scytalus cupreus*, *Rafinesque, Amer. Jour. Art. & Sci.* i. 85. *Harlan, Med. and Phys. Res.* 130. *Trigonocephalus Cenchris*, *Schlegel*, 553, *t.* 20, *f.* 10, 11. *Tisiphone cuprea*, *Fitz. Syst.* 63. *Black and Brown Viper*, *Catesby, Carol. t.* 44, *f.* 5. *Pelias niger*, *Merrem, Tent.* 149. *Scytale nigra*, *Daud. Rept.* v. 342. *Angkistrodon Mokeson*, *Palis. de Beauv. Trans. Amer. Phil. Soc.* iv. 370, 380. *Bastard Rattle-snake*, *Harlan. Copper-head, Americans.* *Trigon. Cacodæmon*, *Boie, Isis*, 561.

Hazel-brown, with dark brown cross-bands, narrowest on the vertebral line, broader and forked on the flanks; beneath grayish, minutely punctated.

a. In spirits. Young. N. America, Texas? From Mr. Drummond's collection.

2. The BLACK-BROWN MOCASSIN. *Cenchris atrofuscus*. *Toxicophis atrofuscus*, *Troost, Ann. Lyc. N. H. New York*, iii. 181. *Trigonocephalus atrofuscus*, *Holbrook, N. Amer. Erp.* iii. 43, *t.* 9.

Dusky, with a series of large, lozenge-shaped, dark-centred, pale spots on the vertebral line; scales of the hinder part of the head small, hexagonal and smooth.

Inhab. N. America, Tennessee. *Troost.*

Perhaps a variety of the former.

3. The WATER VIPER. *Cenchris piscivorus*, *Gray, Zool. Misc.* 51. *Water Viper*, *Catesby, Carol.* ii. 43, *t.* 43. *Crotalus piscivorus*, *Lacép. Herp.* ii. 424. *Scytalus piscivorus*, *Latr. Rept.* iii. 163. *Harlan, Med. and Phys. Res.* 129. *Scytale piscivorus*, *Daud. Rept.* v. 343. *Coluber aquaticus*, *Shaw, Zool.* iii. 425, *t.* 3, from *Catesby*. *Natrix piscivorus*, *Merrem, Tent.* 131. *Trigonocephalus*

tisiphone, *Cuvier, R. A. ii. 89, from Catesby, t. 43. Holbrook, N. Amer. Erp. iii. 33, t. 7 (not Col. tisiphone, Shaw). Toxicophis leucostomus, Troost, Ann. Lyc. N. H. New York, iii. 176. Water Moccasin or Cotton-mouth or Bastard Rattle-snake, North-Americans.*

Greenish brown, black cross-banded.

- a. In spirits. Adult, partly bleached. North America. From Sir Hans Sloane's collection.
- b. In spirits. Half grown. N. America. Presented by R. Harlan, M. D.
- c. In spirits. Half grown. N. America. Presented by Dr. Schaum. ? *C. atrofusculus, Holbrook.*

c. *Subcaudal shields one-rowed; tail ending in a rattle; head more or less shielded. Crotalina.*

9. CROTALOPHORUS.

Head with nine large shields extending to behind the eyes; labial shields moderate; temple covered with rather large keeled scales.

Caudisona, Fitzinger, N. Class. 63, 1826. Wagler, Amph. 176, 1830. Crotalophorus, Linn. S. N. ed. 7. Gronov. Ichth. Gray, Annal. Phil. 1825, 205. Holbrook, N. A. Erp. 1842. Crotalus sp., Linn. Say.

1. The SMALL RATTLE-SNAKE. *Crotalophorus miliarius, Gray, Ann. Phil. 1825, 205. Holbrook, N. Amer. Erp. iii. 25, t. 4 (good). Caudosona miliaria, Fitz. N. Class. 63. Wagler, Amph. 176. Caudisona miliaris, Gray, Zool. Misc. 51. Crotalus miliarius, Linn. S. N. i. 372. Schlegel, P. S. 569, t. 20, f. 17, 18. Seba, Thes. ii. t. 95, f. 3. Small Rattle-snake, Catesby, Carol. t. 42. Merrem, Ann. Wetter. i. 15, t. 3. Lacep. Q. O. 4, t. 18, f. 2.*

Olive or brown; crown and nape with an irregular dark brown band on each side; cheek dark, with a narrow white streak from the back of the eye; back with a central series of brown spots; sides with two alternating series of brown spots; belly black marbled.

- a, b. In spirits. Young. N. America. Presented by Dr. Richard Harlan.

Dorsal spot narrow, reddish; dorsal streak distinct.

- c. In spirits. Young, like a, b. N. America. Presented by Jacob Green, M. D.
- d. In spirits. Young, like a, b; bleached. N. America, Canada. Old collection.

e. In spirits. Very young, like *a*, *b*. N. America. Presented by the Earl of Orkney.

f. In spirits. Young, like *a*, *b*. N. America. Presented by the Trustees of the Roy. Col. of Surgeons.

Var. ? Spot larger; vertebral series broad; transverse streak on back of neck not united to the foot-band; no appearance of reddish dorsal streak. Perhaps a species. *C. tergeminus*, var. ?

a. In spirits. N. America, Canada. Presented by J. Cruickshank, Esq.

2. SAY'S FALSE RATTLE-SNAKE. *Crotalophorus tergeminus*, *Holbrook*, *N. Amer. Erp.* iii. 29, t. 5. *Crotalus tergeminus*, *Say*, *Long's Exped. Rock. Mount.* i. 499. *Harlan, Med. and Phys. Res.* 135. *C. miliarius*, var. *Schlegel, Phys. Serp.* 569.

Olive or cinereous, with three rows of dark brown spots; the vertebral series broad, oblong, transverse, with a broad streak ending in a transverse band behind, on each side of the back of the neck: beneath dusky, varied; cheek streak broad, distinct.

Inhab. N. America, Rocky Mountains, *Say*. Mus. Dr. Holbrook.

Perhaps a variety of the former, or the same as the variety specimen *a*, but the bands on the nape are united behind to the first spot.

3. KIRTLAND'S RATTLE-SNAKE. *Crotalophorus Kirtlandi*, *Holbrook*, *N. Amer. Erp.* iii. 31, t. 6.

Black, varied with dusky brown, marked with three series of large dark spots, separated by a series of light brown rings on the back and vertical lines on the flanks, which are hardly visible in old animals.

Inhab. N. America, Ohio and Michigan, *Kirtland*. Cab. Dr. Holbrook.

10. UROPSOPHUS.

Head between and behind the eyes covered with keeled scales; nose in front of the eyes, with three pairs of subsymmetrical shields; superciliary shield large; temples covered with rather large flat scales; labial shields moderate, flat,—the first, fourth, and the hinder ones largest; three series of flat loreal shields under the eyes; shields of two lower series of a moderate size; the upper ones small, sometimes wanting.

Crotalus sp., *Linn. S. N.* *Crotalus*, § 2, *Wagler, Syst. Amph.* 176, 1830. *Gray, Zool. Misc.* *Uropsophus*, *Wagler, Syst. Amph.* 176, 1830. *Gray, Zool. Misc.* 1842. *ANAT., Tyson, Phil. Trans.* 4144. *Duvernoy, Ann. Sci. Nat.* xxvi. t. 10, f. 1—5.

1. The RATTLE-SNAKE. *Uropsophus durissus*. *Crotalus durissus*, *Kalm. Act. Holm. p.* 1752, 310, 1753, 52, 185. *Linn. S. N.* i. 372. *Daud. Rept. v. t.* 68, f. 1, 2. *Schlegel, Phys. Serp.* 565, t. 20, f. 15, 16. *Holbrook, N. Amer. Erp.* iii. 9, t. 1. *C. atricaudatus*, *Latr. Rept.* iii. 209. *Gray, Zool. Misc.* 51. *C. horridus*, *Guerin, Icon. t.* 23, f. 2. *C. confluentus*, *Say.* *C. rhombifer*, *Latr. Rept.* iii. 197. *C. triseriatus*, *Wieg. in Mus. Berl.* *Uropsophus triseriatus*, *Wagler, Syst. Amph.* 176. *Gray, Zool. Misc.* 51. Rattlesnake, *Catesby, Carol. ii. t.* 41. *Crotalus Catesbæi*, *Hemp. Fitz. N. Class.* 63.

Pale brown; temple with a dark streak from the back of the eye; occiput and back of the neck with a brown spot on each side; back with irregular brown cross bands; sides with a series of roundish dark spots.

- a. In spirits. Young. N. America, Texas. From Mr. Drummond's collection.
- b. In spirits. Young. N. America.
- c. In spirits. Adult. N. America.
- d. In spirits. Half grown. N. America, New Orleans.
- e. In spirits. Adult; discoloured. N. America. Presented by the Royal College of Surgeons.

11. CROTALUS.

Head between and behind the eyes covered with convex keeled scales; nose in front of the eyes, with one (or rarely three) pair of shields: superciliary shields large; temples, cheeks and lores covered with small, uniform, convex scales; upper labial shields very small, the first two and fourth on each side largest; lower labial shields larger,—the first, second, fourth and fifth largest, rest nearly uniform; shields under the eyes small, like those on the temple, and in five or six series.

Crotalus, *Gray, Ann. Phil.* 1825, 205. *Crotalus* sp., *Linn. S. N. ed.* 10, 214. *Crotalus*, Sect. I., *Wagler, Syst. Amph.* 76. *Gray, Zool. Misc.* 51. *Urocrotalon* and *Crotalus*, *Fitz. Syst. Oph.* 1846. *Caudisona* sp., *Linn. S. N. ed.* 1. *Laur. Rept.* 92.

The best character between the two genera appears to be the size of the labial shield, and the size and number of the scales on

the side of the face and temples. Wagler and Schlegel consider the number of shields on the nose to afford a good character; but the specimens in the Museum are very different in this respect: the two young ones have a pair of shields occupying the front half of the space between the superciliary shields.

1. The CASCABELLA. *Crotalus horridus*, Linn. *Syst. Nat.* i. 372. Daud. *Rept.* v. 311, t. 69, f. 1. Gray, *Zool. Misc.* 51. Schlegel, *Phys. Serp.* 561, t. 20, f. 12, 13, 14. *Neuw. Abbild.* xi. t. 3. *C. cascavella*, Spix, *Serp. Braz.* 61, t. 24. *C. adamanteus*, Beauvois, *Trans. Amer. Phil. Soc.* iv. 368. Holbrook, *N. A. Erp.* iii. 17, t. 2. Buibuirá, Lacep. *Quad. Ovip.* ii. 390, t. 18, f. 1. Boicingina, Marcgrave, *Piso*, 274. *Crotalus Simus*, Latr. *Rept.* iii. 202. Seba, ii. t. 95, f. 1. *Caudisona terrifica*, Laur. *Rept.* 93, 96. Seba, ii. t. 95, f. 1. Col. Javana, Laur. *Rept.* Seba, i. t. 70, f. 12 (no rattle). *Vipera Javanus*, Daud. *C. rhombifer*, Latr. *Rept.* iii. 197. Daud. *Rept.* v. 323, t. 40, f. 22. Merrem, *Tent.* 157. *C. durissus*, Shaw, *Zool.* iii. 233, f. 89, (not description). *C. Oregonus*, Holbrook, *N. Amer. Erp.* iii. 21, t. 3, var. ?

Brown, with a broad brown streak on each side of the back of the neck, and with brown spots and oblique whole cross-bars for leaving lozenge-shaped spots.

a. In spirits. Adult; bleached. N. America. From Sir Hans Sloane's collection.

Nose with two pairs of symmetrical shields; the front pair close together; the hinder pair ovate, concave, separated by a small pair of scales.

Crotalus durissus, Shaw, *MSS. B. M.*

b. In spirits. Half grown. N. America. Venezuela. From Mr. Dyson's collection.

Nose with two pairs of symmetrical shields; the front pair triangular, close together; the hinder pair ovate, concave, with a central keel, and nearly close together.

c. In spirits. Young. N. America, Venezuela. From Mr. Dyson's collection.

Nose with three pairs of symmetrical shields, all close together; the front pair triangular; the second square; the hinder elongate, occupying the front half of the space between the superciliary shields.

d. In spirits. Young. W. Indies? Presented by Miss Saul.

Nose-shields like specimen c.

e. In spirits. Young. Columbia. From Mr. Brandt's collection.

Nose-shields small, unequal.

This family consists of 11 genera and 37 species: 31 of the species are contained in the Museum collection. Schlegel, in his last work on the species of snakes, described 17 species. The genera 1, *Craspedocephalus*; 6, *Lachesis*; 7, *Trigonocephalus*; 8, *Cenchris*; 9, *Crotalophorus*; 10, *Uropsophus*, and 11, *Crotalus*, are confined to America: 2, *Trimesurus*; 3, *Parias*, and 5, *Atropos*, to Asia and its Islands: 4, *Megæra*, is found in Asia and South Africa.

Fam. II. VIPERIDÆ.

Face without any suborbital pit on the side: upper jaw toothless, with fangs in front: rostral shields broad, band-like. Scales keeled (except in *Acanthophis*). Tail short, tapering.

Viperine, *Oppell, Serp.* 1811. Viperidæ, *Boie, Isis*, xx. 510, 1827. *Gray, Zool. Misc.* 1842. Viperidæ and Crotalidæ part, *Gray, Ann. Phil.* 1825, 209. Les Serpents Vénémeux proprement dit, part, *Schlegel, Phys. Serp.* 820. *Aspidophis* part and *Chersophis*, *Fitz. Consp. Syst. Ophid.* 1846. *Holochalina* part, *Müller*.

Synopsis of the Genera.

I. Head depressed, rounded on the sides, covered with acutely keeled scales.

a. Nostrils large, subsuperior, anterior, in the centre of a ring-like shield, edged with a large scale above. *Clothonina*.

1. DABOIA. Eyes convex, pupil round: head elongate; scales regularly keeled; nasal shield smooth in front. India.
2. CLOTHO. Eyes convex; pupil oblong, erect: head short, broad, scales keeled, ending in a spine; nasal shield interrupted by a small shield in front. Africa.

b. Nostrils small, subanterior, sublateral. *Cerastina*.

3. CERASTES. Subcaudal plates two-rowed; nostrils lunate on the hinder part of a small nasal plate; eyelid of males horned.
4. ECHIS. Subcaudal plates one-rowed; nostrils minute in suture of two small scales; the anterior frontal shields minute, smooth; pupil round.

II. Head more or less shielded; nostrils anterior, lateral.

a. Head flat-topped, high on the sides, shielded in front; nostrils in the middle of a shield; tail end simple; subcaudal plates two-rowed. *Viperina*.

5. VIPERA. Superciliary shield distinct; rest of the head covered with small smooth plates; nose more or less recurved.
6. PALIAS. Vertebral, occipital and superciliary plates distinct; front of head with small shields; nose blunt.

- b. *Head ovate, rounded on the sides, crown entirely shielded : nostrils between two plates ; tail end simple ; subcaudal plates two-rowed.* Sepedonina.

7. **SEPEDON.** Scales keeled ; loreal shields none ; one anterior and three posterior ocular shields ; subcaudal shields two-rowed.

- c. *Head depressed, shielded, prominent over the eyes ; nostrils between two shields ; tail ending in a recurved spine ; subcaudal plates one-rowed.* Acanthophina.

8. **ACANTHOPHIS.** Head-shield rather scale-like ; loreal none.

I. *Head dilated, depressed, covered with acutely keeled scales, rounded on the sides.*

- a. *Nostrils large, subsuperior, anterior, in the centre of a ring-like shield, edged with a large scale above.* Clothonina.

1. DABOIA.

Eyes convex, pupil round : head elongate ; scales regularly keeled ; nasal shield smooth in front ; superciliary shield narrow, elongate, distinct. India.

Daboia, Gray, *Zool. Misc.* 69, 1842. *Vipera*, β ., Wagler, *Syst.* 177.

1. The **KATUKA.** *Daboia elegans*, Gray, *Zool. Misc.* 69. *Katuka retuka poda*, Russell, *Ind. Serp.* i. 10, t. 7. *Coluber Russellii*, Shaw, *Zool.* iii. 418, t. 108. *Vipera elegans*, Daud. *Rept.* vi. 124, t. 73. Schlegel, *Phys. Serp.* 588, t. 21, f. 4, 5. *Echidna elegans*, Merrem, *Tent.* 152. *Coluber trinoculus*, Schneid. in *Bechst. Laccp.* iv. 248. *Col. triseriatus*, Herm. *Obs. Z.* i. 278. *Tic polonga*, Davy, *Ceylon*, 85. *Daboie*, Laccp. *Quad. Ovip.* ii. 255, t. 13, f. 2. *Vipera Daboya*, Daud. *Rept.* vi. 119. Wagler, *Amph.* 177. *Echidna Daboia*, Merrem, *Tent.* 152. *Coluber Brasiliensis*, Laccp. *Quad. Ovip.* ii. 119, t. 4, f. 2. *Vipera brasiliensis*, Latr. *Rept.* iv. 7. Daud. *Rept.* vi. 86. ? *V. arenicola*, A. Smith, *Cat. Rept.*

Brown, with three rows of white-edged, oblong, brown spots ; two brown spots on each side of the occiput, separated by a narrow, oblique, yellow, temporal streak.

- a. In spirits. Adult. India. Presented by Dr. Patrick Russell.
Col. Russellii, *E. W. Gray, MSS. B. M. Shaw.*
- b, c. In spirits. Adult. India.
- d. In spirits. Adult. Presented by General Hardwicke.
- e. In spirits. Half grown. India.
- f, g. In spirits. Half grown and young. Ceylon. Presented by
R. Templeton, Esq., R.E.
- h. In spirits. Young. Ceylon. Presented by Capt. Gascoigne.
Yellow-brown; back with three rows of roundish spots, pale
spotted on the edge, the front and hinder spots elongate, sometimes
confluent: head black-brown, with a line over each eye, a broad
cross-like mark on the crown and a spot before each eye; chin and
beneath white, brown spotted.
- Daboia pulchella, Gray, Zool. Misc. 69.*
- i. Stuffed. Adult. India.

2. RUSSELL'S KATUKA. *Daboia Russellii, Gray, Zool. Misc.*
Coluber, No. 32, *Russell, Ind. Serp.* ii. 37, t. 32. *Vipera elegans*,
var. ? *Schlegel, Phys. Serp.* 588.

Pale gray-brown, with three series of darker oblong spots; be-
neath white.

Inhab. Bombay.

Dr. Russell engraved perhaps a bad drawing of a very old spec-
imen of the former: he considers it *Coluber Lachesis* of Dr. Shaw.

3. THE XANTHIAN KATUKA. *Daboia Xanthina.*

Pale brown; beneath paler, closely punctulated; back irregu-
larly brown spotted, central series largest; occiput with an oblong
dark spot on each side; temple with an oblique brown streak, be-
coming broader behind from the back angle of the eyes; lip with a
small brown spot under the eyes.

- a. In spirits. Adult. Xanthus. Presented by Sir Charles Fellowes.
- b. In spirits. Young. Asia Minor. Presented by A. C. Christy,
Esq.

2. CLOTHO.

Eyes convex; pupil oblong, erect: head short, broad: keel of
scales ending in a spine: superciliary shields small, scale-like: nasal
shield arched over the nostril and interrupted by a small shield in
front. Africa.

Clotho, Gray, Zool. Misc. 69, 1842. Clotho, part, Wagler.
Vipera sp., *Schlegel, Phys. Serp.* 588. *Cerastes* sp., *Wagler, Syst.*
Amph. 178, 1830. *Echidna* sp., *Merrem, Tent.* 150, 1820. *Wagler,*
Syst. 177, 1830, not *Geoff.* *Vipera* and *Cobra* sp., *Lacep. Rept.* 99,
100.

* *Scales over the nostril of the males produced into a long recurved spine.*

1. **THE RIVER JACK.** *Clotho nasicornis*, Gray, *Zool. Misc.* 69. *Coluber nasicornis*, Shaw, *Misc.* t. 94. *Gen. Zool.* iii. 397, t. 104. *V. nasicornis*, Daud. *Rept.* vii. 322. *Reinh. K. Dansk. Selsk.* x. 273, t. 3, f. 8, 9. *Vipera cornuta* (monstrosity?), Schlegel, *Phys. Serp.* 582, note. *Cerastes* (nasicornis), Wagler, *Syst. Amph.* 178. *Echidna nasicornis*, Merrem, *Tent.* 150. River Jack, Colonists.

Black, paler marbled; back with a series of lozenge-shaped dark spots, separated by pale triangles on each side: head pale; crown with a large triangular mark, wide behind, a broad streak on the lore and larger one on the temple, and a large triangular spot under the eyes.

- a. In spirits. Adult, male. Nasal horns large. Guinea.
Col. nasicornis, E. W. Gray's MSS. B. M. fide Shaw.
- b. In spirits. Adult, male. Nasal horns large. Guinea.
- c. In spirits. Head and neck of half-grown male. Nasal horns moderate. Coast of Africa.
- d. In spirits. Young, female? Nasal horns none. Coast of Africa.
- e. In spirits. Very young, female? Nasal horns none. Ashante.
From the Leyden Museum.
Vipera Schlegellii, Gray, B. M.

The *Das Adder* of South Africa is a local variety or allied species. A fine specimen is in the museum of Dr. A. Smith.

** *Scales over the nostril in both sexes simple, arched. Eyebrow scales simple.* Bitis. *Echidna* sp., Wagler, *Syst.*

2. **THE PUFF ADDER.** *Clotho arietans*, Gray, *Zool. Misc.* 69. *Echidna arietans*, Merrem, *Beitr.* iii. 121. *Tent.* 152. Wagler, *Syst.* 177. *Vipera inflata*, Burchell, *Trav.* i. 469. Smith, *Edinb. Journ.* i. 284. *V. brachyura*, Cuv. *R. A.* ii. 90; ed. 2. Wagler, *Amph.* t. 11. *V. arietans*, Schlegel, 577, t. 21, f. 1—3. Boie, *Erp. Java*, t. 46. Cobra *Clotho* and Cobra *Lachesis*, Laur. *R.* 104 = *Seba*, ii. t. 93, f. 1, t. 94, f. 2. Col. *hebraicus*, Lacep. *Quad. Ovip.* ii. 106 = *Seba*, ii. t. 30, f. 1; iii. t. 54, f. 4. *Vipera Clotho* (part), Daud. *Rept.* vi. 171, from *Seba*. Col. *dubius*, Gmelin, *S. N.* i. 1086. Col. Bitis, Bonnat, *Oph.* 22. Col. *intumescens*, Donnd. *Zool. Beyt.* iii. 209. *Vipera severa*, Daud. *Rept.* vi. 116. Puff Adder or Puff-otter, Paterson, *Trav.* 162. Cape Colonists.

Brown, with angular cross-band, edged behind by a pale line; nose with a red cross-band across the eyes; chin and beneath paler.
a—d. Stuffed. Adult. Cape of Good Hope.

3. The WEST-AFRICAN PUFF ADDER. *Clotho lateristriga*, Gray, *Zool. Misc.* 69.

Gray-brown, black spotted, with black-edged, white, angular bands across the back, and spots on the tail, with a broad, longitudinal pale streak on each side the neck, bent up behind, and forming the first band on the front of the back: head black-spotted, two black spots on the crown and a black streak from the back angle of each eye to the gape.

a. Stuffed. Adult. Gambia. Purchased of Mr. Randall.

4. The BERG ADDER. *Clotho Atropos*, Gray, *Zool. Misc.* 69. Col. *Atropos*, Linn. *Mus. Adolph. Fred.* 1, 22, t. 13, f. 1. Cobra *Atropos*, Laur. *Rept.* 104. *Vipera montana*, A. Smith, *Edinb. Phil. Journ.* i. 284. V. *Atropos*, Latr. *Rept.* iii. 334. Daud. *Rept.* vi. 210. V. *Echidna Atropos*, Merrem, *Tent.* 152. A. Smith, *Illust. Zool. S. Africa, Rept.* t. 52, adult. *Echidna Atropos*, Wagler, *Amph.* 177. Berg Adder, *Cape Colonists*, var. ? *Vipera Echidna Atropoides*, A. Smith, *Illust. Zool. S. A. Rept.* t. 53. *Clotho?* *Atropoides*, Gray, *Zool. Misc.* 69.

Olive-gray; back with two series of dark square spots on each side of the vertebral line; sides darker marbled: the first, second and third lower labial scales high, elongate; the rest moderate, mostly square.

a. In spirits. Half grown. South Africa? From Sir H. Sloane's collection.

b. In spirits. Half grown. South Africa. Presented by the Earl of Derby.

c. In spirits. Young. S. Africa.

d. In spirits. Adult. S. Africa. From Mr. Brandt's collection.

5. The PLAIN BERG ADDER. *Clotho?* *inornata*. *Vipera inornata*, A. Smith, *Edinb. Journ.* i. 7. *Echidna inornata*, A. Smith, *Illust. Zool. S. Africa, Rept.* t. 4.

Yellowish brown; beneath brownish yellow, sparingly sprinkled with brownish dots; tail olive, brown varied; head oblong, cordiform; eyebrows considerably elevated.

Inhab. S. Africa. Snow Mountains or Sneebergen, J. Lieb, *Esq.* In the collection of Dr. A. Smith.

6. The ALGERINE ADDER. *Clotho? mauritanica*. *Echidna mauritanica*, *Dum. & Bib. Exped. Sci. Alger. Rept. t. 3*, no desc.

Brown: back with large, oval, nearly contiguous cross-bands; sides with a sinuous pale streak: head pale; temporal streak simple, dark; superciliary shields 3-3, simple.

Inhab. Algiers. Mus. Paris.

*** *Nasal plate simple: eyebrows of males? or both sexes with a group of small horn-like scales over the eyes.*

7. The HORNED ADDER. *Clotho cornuta*. *Vipera cornuta*, *Daud. vi. 188*. *Schlegel, 582, t. 21, f. 8, 9*. *A. Smith, Ill. Z. S. Afr. Rept. 32*. *V. Lophophrys, Cuvier, R. A. ii. 92, ed. 2, 4*. *Pater-son, Trav. t. 15*. *A. Smith, Ill. Zool. S. A. Rept. t. 33*. *V. armata, A. Smith, Edinb. Journ. i. 2*. *Gehorne Schlange, Licht. Reise. i. 153*. *Cerastes cornuta, Gray, Zool. Misc. 96*. *Cerastes? cauda-lis, Gray, Zool. Misc. 96*. *Vipera (Cerastes) caudalis, A. Smith, Illust. Zool. S. Africa, Rept. t. 7*. *Vipera ocellata, A. Smith, Mag. Nat. Hist. (1838), ii. 92, not Daud.*

Gray-brown, minutely and closely black-dotted; back with four series of irregular dark spots; sides dark marbled; scales rather elongate, keeled to the rather acute tip: the first, second and third lower labial shields high; the rest moderate, nearly square.

a. In spirits. Half grown. Cape of Good Hope. Presented by — Ford, Esq., 72nd Reg. From the Chatham Museum.

b, c. In spirits. Adult and young. S. Africa, Cape of Good Hope. Presented by the Earl of Derby.

b. *Nostrils small, sublateral, anterior*. *Cerastina*.

3. CERASTES.

Subcaudal plates two-rowed: nostrils lunate, in the hinder part of a small nasal plate: superciliary shields very small, scale-like: eyebrows of males often horned: scales keeled, broad, ovate, rounded at the end, placed in oblique cross-series: keel not reaching the tip.

Cerastes, Wagler, Syst. Amph. 173, 1830. *Gray, Zool. Misc. 96*. *Aspis sp., Laur. Fitzinger*. *Cobra, Gray, Ann. Phil. 1825, 205*. *Cobra sp., Laur.*

1. The CERASTES. *Cerastes Hasselquistii*. *Cerastes*, *Belon*, *Obs.* ii. 54. *Bruce*, *Trav.* t. 14. *Lacep. Quad. Ovip.* ii. 72, t. 1, f. 2. *Coluber Cerastes*, *Hasselq. Act. Upsal.* 1750. *Linn. S. N.* i. 376. *Ellis*, *Phil. Trans.* lvi. t. 14. *Shaw*, *Zool.* iii. 385, t. 103. *C. cornutus*, *Hasselq. Reis.* 365. *Vipera Cerastes*, *Latr. Rept.* iii. 313. *Daud. Rept.* vi. 178, t. 74, f. 1. *Echidna Cerastes*, *Merrem, Tent.* 150. *Cerastes*, *Wagler, Syst. Amph.*

Brownish white, with pale brown, irregular, unequal spots; scales broad, ovate, rounded at the end, keeled, placed in oblique cross series; keel not reaching to the end of the scale, enlarged at the end; scales of the crown moderate, smaller than those of the back; four or five rows of scales between the eyes and the labial shields; lower labial shields large, the first to the eighth higher than long. Males with a horn-like scale over the eyes.

- a. In spirits. Adult. Egypt. From Sir Hans Sloane's collection.
 b, c. In spirits. Adult. i. Young. Egypt. Presented by James Burton, Esq.
 d, e. In spirits. Adult. Egypt. Presented by Sir J. Gardiner Wilkinson.

Var. 1, or females? Eyebrows not horned.

Coluber Vipera, *Hasselq. Reis.* 363. *Linn. S. N.* i. 375. *Aspis Cleopatrarum*, *Laur. Rept.* 105. *Col. Ægyptiacus*, *Lacep. Q. O.* ii. 65. *Vipera Ægyptia*, *Latr. Rept.* iii. 320. *V. Ægyptiaca*, *Daud. Rept.* vi. 212. *Merrem, Tent.* 152.

- f, g. In spirits. Adult. Egypt. Presented by Sir J. Gardiner Wilkinson.
 h. Adult. k. Young. In spirits. Presented by James Burton, Esq.

2. The ROUGH CERASTES. *Cerastes Ritchii*, *Gray, Zool. Misc.* 96

Uniform pale brown: scales of head largest: cheek with only three rows of scales between the eyes and the labial shields: lower labial shield moderate; the first long; the second and third scarcely higher than long; the rest small, rather longer than high. More rugose than *C. Hasselquistii*.

- a—c. In spirits. Half grown (females?) without horns. Tripoli. Presented by J. Ritchie, Esq.

4. ECHIS.

Subcaudal plates one-rowed: nostrils minute, in suture of two small scales: the anterior frontal shields minute, smooth: pupil round: eyes surrounded by small scales: superciliary shield small, scale-like or single, elongate and distinct: scales elongate, keeled to the tip.

Echis, *Merrem*, *Tent.* 149, 1820. *Gray*, *Zool. Misc.* 96. *Wagler*, *Syst.* 177. *Scytale*, *Latr. Rept.* iii. 158. *Daud.* v. 339. *Cuvier*, *R. A.* ii. 79, not *Merrem*. *Boa* sp., *Shaw*, *Zool.*

* *Superciliary shields small, like a scale.* Toxicba.

1. The TOXICOA. *Echis arenicola*, *Boie, Isis*, 1827, 558. *Galerie*, *Zool.* t. 48. *Wagler*, *Amph.* 177. *Gray*, *Zool. Misc.* 96. *Vipera pyramidarum*, *Geoff. Rept. Egypt.* t. 7, f. 1. *Savigny*, *R. E.* t. 4, f. 1—4. *Vipera Egyptiaca*, *Ruppell, Mus. Francf.* *Echis pavo* and *Echis varia*, *Reuss. Mus. Senk.* ii. 137, 160, t. 7, f. 2. ? *Col. Libetinus*, *Linn. Mus. Ad. Fr.* ii. 43. *S. N.* i. 165. *Forskal, Faun. Arab.* 13. *Vipera Libetina*, *Latr. Rept.* iii. 324 ? *Daud. Rept.* v. 137 ? *Vipera Echis*, var. 2, *Schlegel, Phys. Serp.* 583.

Superciliary scales small, like the other ocular ones: gray-brown, with angular white streaks, and a series of whitish vertebral spots: crown dark, varied with arrow-shaped white streaks.

a—c. In spirits. Adult. N. Africa, Egypt. Presented by Sir J. Gardiner Wilkinson.

** *Superciliary shields elongate, distinct.* Echis, *Merrem*.

2. The HORATTA PAM. *Echis carinata*, *Merrem Tent.* 149. *Wagler*, *Amph.* 177. *Gray*, *Zool. Misc.* 96. *Horatta Pam*, *Russell, Ind. Serp.* ii. t. 2. *Boa Horatta*, *Shaw, Zool.* iii. 359. *Pseudoboa carinata*, *Schneid. Hist. Amph.* ii. 285. *Scytale bizonata*, *Daud. Rept.* v. 339, t. 70. *Vipera Echis*, var., *Schlegel, Ph. Rept.* 583, t. 21, f. 10, 11. ? *Boa Krait*, *Williams, Asiat. Research.* ii. 328. *Pseudoboa Krait*, *Schneid. Amph.* ii. 288. *Scytale Krait*, *Daud. Rept.* v. 326. *Echis Krait*, *Merrem, Tent.* 149. *E. ziczac*, *Gray, Ann. Phil.* 1825, 205.

Superciliary scales elongate, larger than the others: gray-brown, with angular white streaks: crown of head dark, with large dark-edged oblong spots.

- a, b. In spirits. Pale coloured. India. Presented by Dr. Patrick Russell.
- c, d. In spirits. Brighter coloured, with three series of white-edged dark spots; occiput with a central pale spot; belly brown, spotted on the sides. Presented by Walter Elliott, Esq.
- e. In spirits. Adult. Madras. Presented by J. C. Jerdon, M.D.

II. Head more or less shielded. Nostrils lateral, anterior.

- a. Head flat-topped, high on the sides, shielded in front; crown scaly. Nostrils in the middle of a shield. Tail end simple: subcaudal plates two-rowed. Pupil oblong, erect. Viperina.

5. VIPERA.

Superciliary shields distinct, rest of the head covered with small smooth plates: nose more or less recurved.

Vipera, Gray, Zool. Misc. Bonap. Vipera sp. Latr. Wagler, Amph. 177. Echidna sp., Merrem, Tent. 150. Pelias sp., Boie. Cobra, Fitz. Rhinechis, Fitz. Rhinaspis, Bonap.

* Nose rather elevated and rounded in front.

1. The ASP. Vipera aspis, Latr. Rept. iii. 304. Schlegel, Phys. Serp. 591, t. 21, f. 17, 18. Gray, Zool. Misc. 96. Aspic. Lacep. Q. O. ii. 53, t. 2, f. 1. Razoum. Mont. Jur. 284. Coluber aspis, Linn. S. N. i. 370. Latr. Salam, xxiii. Vipera Francisci Redi, Laur. Rept. 99. Col. Redi, Gmelin, S. N. i. 1091. Shaw, Zool. iii. 380. Vipera Redi, Latr. Rept. iii. 304. Daud. Rept. vi. 152. Coluber Berus, Cuvier, R. A. ii. 82, ed. 2; ii. 91. Col. Chersea, Latr. Rept. iii. 397. Vipera vulgaris, Latr. Rept. iii. 212. V. ocellata, Latr. Rept. iii. 2. Daud. Rept. vi. 240. ? V. maculata, Latr. Rept. iii. 102. Merrem, Tent. 153. ? Col. maculata, Gmelin, S. N. i. 1092. Lachesis Redi, Hempr. Vipera cholobia, Petagna. V. Heegeri, Schinz, t. var. V. prester, Metaxa. Pelias aspis, Boie.

Olive; beneath blackish or pale blackish varied: back with four series of dark spots; the two vertebral series close together and sometimes confluent, subalternate: occiput with two elongate transverse spots: temple with a broad linear streak.

- a. In spirits. Dark olive, spots large. Europe, Alps. Presented by Professor Bonelli.
- b. In spirits. Pale, spots smaller, beneath pale, black varied: male. Europe, Alps. Presented by Professor Bonelli.

**** Nose elongated, acute, with small flat shields. Rhinaspis.**

2. The AMMODYTE. *Vipera Ammodytes*, *Latr. Rept.* iii. 306. *Daud. Rept.* vi. 193, t. 74, f. 2. *Cuv. R. A.* ii. 83. *Merrem, Tent.* 151. *Schlegel, Phys. Serp.* 602, t. 21, f. 19, 20. *C. Ammodytes*, *Linn. S. N.* i. 376. *Amæn. Acad.* i. 506, t. 17, f. 2. *Sturm, Faun. Deut. t. Host. Jacq. Collect.* iv. 350, t. 24, ♀, t. 25, ♂. *V. Mosis Charas*, *Laur. Rept.* 101? *Vipera Illyrica*, *Aldrovand. Laur.* 101. *Col. Charasii*, *Shaw, Zool.* iii. 579. *Cobra Ammodytes*, *Fitz.* *Pelias Ammodytes*, *Boie.* *Rhinechis Ammodytes*, *Fitz.* *Lachesis Ammodytes*, *Hempr.* *Rhinaspis Ammodytes*, *Bonap. Faun. Ital. t. Sand-natter*, *Wolf. Faun. Germ. t.*

Olive; beneath pale, closely dark punctulated: occiput with two broad diverging streaks on each side: temple with an oblique broad dark streak: back with a broad streak, with angular or wavy scales: sides more or less spotted.

a, b. In spirits. Young or half grown. Europe, Shores of Mediterranean. Presented by J. Miller, Esq., R.N.

c. In spirits. Half grown. Delos. Presented by Capt. John Ince, R.N.

d, e. In spirits. Adult. Europe. From Mr. Argent's collection.

6. PELIAS.

Vertebral, occipital and superciliary plates distinct; front of head with small shields: nose blunt.

Pelias, *Merrem, Tent.* 148, 1820. *Wagler, Amph.* 177. *Gray, Zool. Misc.* 96, *Vipera sp.*, *Schlegel.* *Coluber*, *Laur. Rept.* 94.

1. The ADDER or VIPER. *Pelias Berus*, *Merrem, Tent.* 148. *Gray, Zool. Misc.* 96. *Bonap. F. Ital. t.* *Coluber Berus*, *Linn. S. N.* i. 377. *Laur. Rept.* 192, t. 2, f. 1. *C. Chersea*, *Linn. S. N.* i. 377. *Schwed. Abb.* xi. 255, t. 6, f. 1, 2. *Sturm, Deutsch. Faun. t.* *C. prester*, *Linn. S. N.* i. 377. *Sturm, Deutsch. Faun. t.* *Vipera vulgaris*, *Latr. Rept.* iii. 212, t. *V. Berus*, *Daud. Rept.* vi. 89, t. 72, f. 1. *V. Chersea*, *Daud. Rept.* vi. 144. *Pelias Chersea*, *Wagler, Amph.* 178. *Bonap. F. Ital. t.* *V. prester*, *Latr. Rept.* iii. 309. *Daud. Rept.* vi. 161. *Coluber Scythia*, *Pallas, Reis.* ii. 717. *Gmelin, S. N.* i. 1091. *Col. melania*, *Pallas, Reis.* i. 460. *V. melania*, *Latr. Rept.* iii. 311. *Daud. Rept.* vi. 191. *V. Scythia*, *Latr. Rept.* iii. 312. *Daud. Rept.* vi. 150. *Vipera Torva*, *Lenz. Schlangenck.* 133. *Col. Vipera anglorum*, *Laur. Rept.* 99, 188, t. 4, f. 1. *C.*

niger, *Lacep. Quad. Ovip.* ii. 56. Col. Hannasch aesusaed? *Forsh. Anim.* 15. Col. Hannash, *Gmelin, S. N.* i. 1116. *Pelias niger*, *Merrem, Tent.* 149. *Viper, Penn. B. Z.* iii. 17. *Coluber zerboa*, *Shaw?* Col. boiquatera, *Shaw.* *Vipera alpina*, *Vest.* *V. marasso*, *Cetta.* *V. lymnea*, *Bendiscioli.* *Polygerrus paradoxus*, *Hemp.*, very young.

Olive; beneath dark: crown black, pale varied, with a diverging streak on occiput: back with a sinuous or angular-edged dark streak; sides pale, black spotted: lips white: temple streak, broad, linear, extending down the side of the neck.

a, b. In spirits. Adult. Island of Arran. Presented by W. E. Leach, M.D.

c ♀, d ♀. Adult. e. Half grown. f. Young. In spirits. Devonshire. Presented by W. E. Leach, M.D.

g—i. Young. In spirits. Somerset. Presented by W. E. Leach, M.D.

k. Young. In spirits. Dorsetshire. Presented by Rev. T. Racket.

l. Adult. In spirits. Kent. Presented by Sir J. W. Lubbock, Bart.

m, n. Adult. In spirits. Europe. Presented by Mrs. W. P. Mauger.

o. Adult. In spirits. Europe. Presented by the Royal College of Surgeons.

p, q. Adult. Stuffed. Europe.

r. Adult. In spirits. Europe.

s. Half grown. In spirits; discoloured. ————?

Pelias dorsalis, *Gray, Zool. Misc.*

b. *Head ovate, rounded on the sides, crown entirely shielded. Nostrils lateral, between two plates. Pupil round. Tail end simple: subcaudal plates two-rowed. Sepedonina.*

7. SEPEDON.

Scales keeled, in oblique cross series, of the sides larger and broader, of the back rather elongate: one anterior and three posterior ocular shields: subcaudal shields two-rowed. Allied to *Naja*, but has no solid teeth behind the fangs.

Sepedon, *Cuvier, R. A.* ii. 86. *Merrem, Tent.* 146, 1820. *Wagler, Syst.* 173. *Boie, Isis*, 1827, 556. *ANAT., Duvernoy, Ann. Sci. Nat.* xxvi. t. 9, f. 3, head. *Schlegel, Phys. Serp.* 482.

1. The RINGHALSSLANG. *Sepedon Hæmachates*, *Merrem*, *Tent.* 146. *Seba*, ii. t. 58, f. 1, 3. *Hæmachate*, *Lacép. Quad. Ovip.* ii. 115, t. 3, f. 2. *Cuvier*, *R. A.* ii. 86. *Vipera Hæmachates*, *Latr. Rept.* iv. 30. *Daud. Rept.* vi. 207. *Naja capensis*, *A. Smith*, *Edin. Phil. Journ.* i. 2. *Naja Hæmachates*, *Schlegel, Phys. Serp.* 481, t. 17, f. 10, 11. *A. Smith*, *Ill. Zool. S. Afr. Rept.* t. 54. Ringhalsslang or Spuwslang, *Colonists*.

Dark brown, yellow spotted and marbled; beneath pale, with broad dark cross bands.

a. In spirits. Young. Cape of Good Hope. Presented by the Lords of the Admiralty.

b. In spirits. Adult. S. Africa, Namaqua.

8. CAUSUS.

Scales lanceolate; of the back slightly keeled; of the sides smooth, in oblique cross series: ocular scales nearly surrounding the eyes: pupil round: body rather flattened; back keeled: tail very short, strong; subcaudal plates two-rowed; tip conical, sheathed.

Causus, *Wagler, Syst.* 172, 1830. *Naja* sp., *Boie, Isis*, 1827. *Schlegel, P. S.* 483. *Sepedon* sp., *Licht.*

1. The CAUSUS. *Causus rhombeatus*, *Wagler, Syst.* 172. *Sepedon rhombeata*, *Licht. Cat. Doub.* 106, 1823. *Naja rhombeata*, *Schlegel, Phys. Serp.* 483, t. 17, f. 12, 13. *Naja V-nigrum*, *Boie, Isis*, 1827, 556. *Coluber (Vipera) V-nigrum*, *Cuvier, R. A.* ii. 94. *Scheuchz. t.* 771, f. 1.

Olive: back with a series of rhombic, pale-edged, brown spots; sides with oblique blackish streaks: lips brown, spotted: temporal streak broad, dark: crown with a broad triangular spot.

a. In spirits. Young. South Africa. Presented by John Lee, LL.D.

b, c. In spirits. Adult. S. Africa. From the Leyden Museum.

d. In spirits. Young. W. Africa.

e. In spirits. Adult. W. Africa, Gold coast. From Mr. Rich's collection.

- c. *Head depressed, shielded, prominent over the eyes. Nostrils between two shields. Pupil erect, elliptical. Tail ending in a recurved spine; subcaudal plates one-rowed. Acanthophina.*

9. ACANTHOPHIS.

Head-shield rather scale-like; loreal shields none; eyes surrounded beneath with a series of shields; labial shields large; scales smooth, rather thin; anterior dorsal keeled.

Acanthophis, *Daud. Rept.* v. 287. *Cuvier, R. A.* ii. 79. *Wagler, Amph.* 172. *Boie, Isis*, 1827, 556. *Ophryas*, *Merrem, Tent.* 146, 1820. *Boa* sp., *Shaw*.

1. The DEATH ADDER. *Acanthophis antarctica*, *Wagler, Syst.* 172. *Gray, Zool. Misc.* 96. *Boa antarctica*, *Shaw, Misc.* t. 35. *Aspis aculeata*, *E. W. Gray, MSS. Brit. Mus.* *Boa aculeata*, *G. Shaw, MSS. Brit. Mus.* *Boa palbebrosa*, *Shaw, Zool.* iii. 362. *Ophryas Acanthophis*, *Merrem, Tent.* 147. *Beytr.* ii. 20, t. 9. *Vipera Acanthophis*, *Schlegel, P. S.* 605, t. 21, f. 21—23. *Acanthophis cerastinus*, *Lacep. Ann. Mus.* iv. 10. *Daud. Rept.* v. 289, t. 67,* from *Merrem*. *Guerin, Icon.* t. 24, f. 2. *A. Brownii*, *Leach, Zool. Misc.* i. 12, t. 35. *Schlingende Natter*, *Merrem, Beytr.* i. 20, t. 3. *Death Viper or Death Adder*, *Colonists*.

Olive, very minutely punctulated with broad darker cross bands; upper lip white-spotted; lower lip and chin yellow, black-spotted; lowest series of scales and ventral shields dark, yellow-edged.

- a. In spirits. Bleached. Old collection.
 "Aspis aculeata, *E. W. Gray, MSS.*" "Boa aculeata, *G. Shaw, MSS.*"
- b. In spirits. Adult. Australia, Van Dieman's Land? Presented by the Rev. J. Wilton.
- c. In spirits. Adult. N. W. Australia.
- d. In spirits. Adult. Port Essington. Presented by the Earl of Derby.
- e. Stuffed. Adult. Australia.

The family contains 9 genera and 20 species, of which 2 genera and 4 species are from Asia, 5 genera and 12 species from Africa, 2 genera and 3 species in Europe, and 1 genus and 1 species from Australia. All the genera are confined to a single quarter of the globe, except *Echis*, which has 1 species from Africa and the other from India, and each of these species form a subgenus. *Schlegel* described only 12 species.

Sub-order II. COLUBRINE SNAKES. COLUBRINIA.

Ophidia, Heterodermia, Colubrinia (*Alöpia* and *Diplepia*), and Homodermia (*Platuria*), *Rafin. Anal. Nat.* 77, 1815. Serpents propres non Vénéneux, et S. Vénéneux à Crochets accompagnes d'autre dents, *Cuvier, R. A. ed. 2, ii.* 74, 96. Serpentia Gulones Innocui, et S. G. Vénéenati pars, *Merrem, Tent.* 81, 141. Les Serpents non Vénéneux, Les Serpents Vénéneux Serpentiiformes, et Les Serpents des Mer, *Schlegel, Phys. Serp.* ii. 1, and 440, 488. Reptilia Hysioidea, Pythonoidea, Colubroidea and Bungaroidea, *Fitz. N. Class.* 26, 32. Harmless snakes, *Gray, Syn. Brit. Mus.*

Fam. III. HYDRIDÆ.

The ventral shields narrow, hexagonal or band-like: the hinder limbs not developed: the eyes and nostrils superior, vertical, the latter valvular, generally placed in the middle of a shield, with a slit or groove to its outer edge: fangs moderate, intermixed with the maxillary teeth: pupil small, round: tail compressed or conical.

Living in the sea or salt-water lakes, or in fresh-water

Hydri and Pseudo-Vipera, *Oppell, Rept.* 1811. Hydridæ, *Gray, Ann. Phil.* x. 1825, 206. *Zool. Misc.* 59, 1842. *Bonap. Amp. Eur.* 9. Bungaroidea, § 1, and Colubroidea pars, *Fitz. N. Class. Rept.* 32, 54, 1826. Hydrophidæ, *Boie, Isis*, xx. 510, 1827. Serpens d'eau douce (part), and Serpents de Mer, *Schlegel, Phys. Serp.* 332, 488. (Ophidia Homodermia), *Platuria, Rafin. Anal. Nat.* 77, 1815. Chalinophidia (fam. Hydrophis) and Hemiophidia (fam. Pelophis, and Nectophis), *Fitz. Consp. Ophid.* 1846.

Synopsis of the Genera.

- I. Tail compressed (except in *Acrochordus*). Belly keeled, with two rows of small scale-like shields, often united together into a single, rather broad, six-sided shield.
- A. Head shielded to the nape. Nasal shields very large, with a large, operculated, superior nostril in their hinder edge; the frontal shields two pairs, small; loreal shield none; labial shields high, large. Hydrina.

a. *Scales square or six-sided, placed side by side.*

* *Head elongate, depressed.*

1. PELAMIS.

** *Head moderate, rather compressed; gape moderate.*

2. LAPEMIS. Head moderate, short, rounded in front; dorsal scales square; ventral shield broad, six-sided.
3. ATURIA. Head moderate, short, rounded in front; dorsal scales six-sided; ventral shield six-sided.
4. MICROCEPHALOPHIS. Head small; scales six-sided; ventral scales keeled.

b. *Scales ovate, six-sided, imbricate, keeled, or with the keel reduced to a tubercle on the centre of the scales: head and gape moderate.*

* *Labial shields occupying the greater part of the lips; the eyes over the fourth, or rarely over the third, or the fourth or fifth shield: ventral shield united.*

5. ENHYDRINA. Rostral plates narrow, erect; lower linear, sunken; nasal narrowed in front: ventral shield flat: head moderate, short; eyes moderate.
6. HYDROPHIS. Rostral broad, transverse; lower triangular; nasal truncated or notched in front: ventral shield flat: head short; eyes small.
7. CHITULIA. Rostral broad, transverse; lower triangular; nasal truncated or notched in front; ventral shields flat: head elongate, depressed; eyes large.
8. KERILIA. Rostral broad, transverse; lower triangular; nasal truncated in front: ventral shield broad, convex, forming a slight keeled ridge; the hinder ones with a keel on each side: head short, shelving: scales very large, broad, six-sided: eyes rather large, over third and fourth labial shields.

**** Labial shield occupying the front half of the lip ; eyes over the fifth or sixth shield ; hinder part of the face covered with small scales ; ventral scales generally two-rowed, forming a keeled ridge, some united in pairs into six-sided shields.**

9. HYDRUS.

c. Body covered with smooth, polished, imbricate scales : head as large as the body : ventral shields rather large, transverse, smooth, folded together and keeled.

10. TOMOGASTER. Head with regular shields ; superciliary shields simple ; ventral shields entire.

11. STEPHANOHYDRA. Head shields numerous ; superciliary shields 3 or 4 ; ventral shields nicked behind.

B. Head covered with scales, like the body : nostrils surrounded by a small, continuous ring : eyes surrounded by a series of small scales ; labial shields small, with a larger series above them : pupil round : ventral shields very small, scale-like, separated on each side of a keeled ridge. Rivers. Acrochordina.

12. CHERSYDRUS. Tail compressed, sword-shaped, prehensile : body fusiform, covered with small rhombic scales, with a central tubercular keel.

13. ACROCHORDUS. Tail conical, tapering, moderate : body fusiform, covered with tricuspid scales.

II. Tail conical, tapering. Belly rounded beneath, with more or less broad band-like shields. Rivers or ponds.

A. Head shielded : tail scaly beneath : abdominal shields flat, small, six-sided, with a keel on each side, as if formed of two united scales : nostrils in a ring of small scales : scales keeled. Erpetonina.

14. ERPETON.

B. Head shielded : tail with two series of shields beneath : nostrils between two shields : abdominal shields broad, keeled on each side : scales smooth. Bitiana.

15. BITIA. Head small.

C. *Head shielded : scales striated, and keeled or smooth : tail conical, tapering, with two series of shields beneath : nostrils in centre of a large nasal shield, with a groove to the outer side : ventral shields rounded (or rarely slightly keeled on the sides) ; frontal shields 3, rarely 2 or 4, all small. Cerberina.*

a. *Crown scaly ; occipital rudimentary ; frontals 4 ; anterior pair very small.*

16. CERBERUS. Scales keeled, striated ; hinder labial shield low.

b. *Crown shielded ; occipital moderate.*

* *Head distinct, depressed ; frontals 4 ; anterior pair small ; rostral rounded.*

17. FERANIA. Scales smooth ; seventh upper labial low, with a large shield over it.

** *Head distinct, depressed ; frontals 3 ; anterior transverse ; rostral rounded.*

† *Fourth and fifth hinder labial shields small or divided.*

18. HOMALOPSIS. Scales keeled.

19. PHYTOLOPIS. Scales smooth.

†† *Hinder labial large, like others ; scales keeled ; rostral rounded.*

20. URANOPS. Scales truncated, strongly keeled, striated ; eye over fourth shield.

21. TACHYNECTES. Scales truncated, strongly keeled.

22. TROPIDOPHIS. Scales ovate, keeled, striated ; eye over fourth and fifth shield.

23. MYRON. Scales ovate, slightly keeled, smooth.

24. HELICOPS. Scales ovate, polished ; of back and tail keeled.

††† *Hinder labials large, like others; scales smooth; rostral rounded.*

25. **HYPsirrhina.** Seventh labial large; eye over fourth and fifth labial; loreal distinct.
26. **FARancia.** The seventh labial large; eye over the third and fourth labial.
27. **HYdrops.** The seventh labial large: eyes over the fourth labial; ventral shield broad; body thick; loreal none.
28. **HYgina.** The seventh labial large; eyes over the fourth labial; ventral shield narrow; body slender; loreal none.
29. **DIMADES.** The seventh labial short, small; eye over third and fourth labial; loreal none.

*** *Head moderate, depressed; frontal 3; anterior elongate, erect, between the nasals; seventh smooth; rostral rounded.*

30. **FORDONIA.** Scales broad, rhombic; ventral shield rounded; loreal none; eye over third labial
31. **GERARDA.** Scales broad, rhombic; ventral shields rounded; eye over fourth shield; loreal square.
32. **HIPISTES.** Scales narrow, flattened; ventral shields keeled at each end; loreal square.

**** *Head indistinct: frontal 4; anterior four-sided, rather smaller; scales smooth; body cylindrical.*

33. **ABASTOR.** Body cylindrical; loreal shield none; anterior frontal four-sided; posterior ocular 2.
34. **RAClitia.** Head small, conical; body subcylindrical; anterior frontal very small, triangular; loreal distinct; posterior ocular 1.
35. **MIRALIA.** "Head small, conical; body compressed; frontal plates 2 pairs; loreal none; posterior ocular 2."

***** *Head moderate, depressed: frontal shields 2, small, lateral, rostral shield angular, high, erect, between frontals and nasal.*

36. **FICINIA.** Head small; rostral plate large, produced between the frontal, angular and recurved in front.

***** *Head small; frontal shields 2, transverse, band-like; rostral triangular, subangular.*

37. PROSYMNA.

D. *Head covered with small scales: tail with one row of shields beneath; abdominal shield broad, rounded, smooth: nostril in a shield, anterior, sublateral: scales granular, with rows of keeled scales. Xenodermina.*

38. XENODERMUS.

I. *Tail compressed, except in Acrochordus. Belly keeled, with two rows of small scale-like shields, often united together into a single, broad, six-sided, often two-keeled shield. The anterior teeth large, and grooved on the front edge. Venomous.*

Hydrina, Gray, Zool. Misc. 59, 1842. Hydridæ, Gray, Ann. Phil. x. 1825, 206. Colubroidea, § 1, and Bungaroidæ, § 1, Fitz. N. Syst. Rept. 32, 1826. Hemiphidia, fam. Nectopus, and Chalinophidia, fam. Hydrophis, Fitz. Consp. Ophid. 1846. Hydrus, Schneid. H. Amph. i. 233. Latr. Rept. iv. 293. Daud. Rept. vii. 372. Cuv. R. A. ii. 74, ed. 2, ii. 97. Merrem, Tent. 138. Hydrophis, Oppell, Rept. 59, 1811. Pelamis, Daud. Rept. vii. 357.

These are true sea-snakes: they coil themselves up on the shore, living on sea-weeds, and lay their eggs on the shore: they are often found asleep on the surface of the sea, when they are easily caught, as they cannot descend without first throwing themselves on their back, probably to repel the air in their large vesicular lungs, (see Grey's West. Australia, 445). Often thrown ashore by the surf: they are sometimes found in rivers, having been brought in by the tide, but they can live only a short time out of salt water. They are often caught in nets, and are held in great dread by the fishermen, on account of their venomous bite.

The pupil is round: Lesson (*Voy. Belanger*) erroneously represents it as linear and erect.

The separation of the specimens of this family into species and genera is attended with great difficulty; the form and number of the shields of the head, lips, temple and chin, are liable to great variation, not only in the different specimens, but often in the two sides of the same individual. The two ventral series of scales are, in the same specimen, sometimes separate, and at other times united

into a shield; and many specimens have a series of small triangular shields on the edge of the lips, between the sutures of the lip-shield, not found in other individuals of the same species.

The distribution of the colours on the body appears to be one of the most permanent characters of the species; but this becomes less distinct in the older specimens, and is often lost in the specimens that have been carelessly or long preserved in a museum.

A. *Head shielded to the nape. Nasal shields very large, with the large operculated superior nostrils in their hinder edge: the frontal shields 2 pair, small: loreal shield none: labial shields high, large: tail compressed.*

a. *Scales square, smooth, imbedded, placed side by side: head elongate, depressed; gape wide; labial shields large, erect; eye over the fourth or fifth shield. Pelamina, Gray, Zool. Misc. 59, 1842.*

1. PELAMIS.

Head long, depressed; gape wide.

Pelamis, *Gray, Ann. Phil.* x. 1825, 207. *Zool. Misc.* 59, 1842. Pelamis sp., *Daud. Rept.* vii. 357. *Cuv. R. A.* ii. 75, ed. 2, ii. *Merrem, Tent.* 138. *Fitz. Isis*, 1827, 32. *Hydrophis* sp., *Latr. Rept.* iv. 193. *Enhydriis*, *Latr. Rept.* iv. 206. *Daud. Rept.* vii. 235. *Anguis* sp., *Linn.* *Hydrus* sp., *Schneider, Amph.* i. 233.

* Back black.

1. The BLACK-BACKED PELAMIS. *Pelamis bicolor*, *Daud. Rept.* vi. 366. *Merrem, Tent.* 138. *Gray, Zool. Misc.* 60. *Anguis platyura*, *Linn. S. N.* i. 391. *Nalla whalagellee pam*, *Russell, Ind. Serp.* i. 47, t. 41. *Hydrus bicolor*, *Schneid. Amph.* i. 242. *Shaw, Zool.* iii. 566, t. 126. *Enhydriis dorsalis*, *Latr. Rept.* iv. 206. *Daud. Rept.* vii. 235. *Hydrophis platyura*, *Latr. Rept.* iv. 197. *Hydrophis pelamis*, *Schlegel, Phys. Serp.* 508, t. 18, f. 13—15.

Above black; upper lip, lower part of sides and belly yellow; the lower edge of the hinder part of the black band even; tail yellow, black varied on the upper and lower edge, and with a few black spots on the centre of each side; vent black; posterior ocular shield single, large; lower ocular shield single, continued under the posterior ocular.

- a. In spirits. Adult. India. Old collection.
"Hydrus bicolor, Shaw."
- b. In spirits. Adult. Indian Seas. From Mr. Leadbeater's collection.
- c. In spirits; bleached, in a bad state. ———? Presented by the College of Surgeons.
- d. In spirits. Adult. Tail with some round spots. New Zealand. From Mr. Argent's collection.
- e. In spirits. Adult. Borneo. Presented by Capt. Sir Edward Belcher, K.C.B., R.N.

Var. 1. Like former, but posterior ocular two squares; lower ocular triangular, moderate.

- f—h. In spirits. Adult. Madagascar? Presented by Capt. Sir Edward Belcher, K.C.B., R.N.
- i. In spirits. Young; bleached. Infraocular forming part of the lip-shields.
- j. In spirits. Young. Lower ocular like d. From the Museum of the Royal College of Surgeons.
- k. In spirits. Half grown. Supraocular on one side deficient. ———? From the Museum of the Royal College of Surgeons.
- l. In spirits. Young. Lower ocular divided into two scales. Madras. Presented by J. C. Jerdon, Esq.

Var. 2. Like former, but black dorsal streak narrower, sometimes only as wide as six or eight rows of scales, interrupted into spot behind; vent yellow, rarely black-edged; tail slightly black varied.

- m. In spirits. ———? Presented by Capt. Sir Edward Belcher, K.C.B., R.N.

Var. 3. Like former; tail nearly black, only white above the lower edge, and with four or five narrow white cross bands.

- n. In spirits. Young. India. Presented by General Hardwicke.

Var. 4. Like former; the lower edge of the hinder part of the black dorsal band sinuous; belly with two round spots in front of vent; tail with large, roundish black spots; one anterior and two posterior oculars. *Russell, Ind. Serp.* ii. t. 41. *Pelamis bicolor, Daud. Rept.* vi. t. 89.

- o. In spirits. Adult. Pacific Ocean.

Var. 5. The hinder part of the dorsal band nearly broken into large spots; anal spots very small or none.

p. In spirits. Adult. Tail yellow, with a series of large round spots on dorsal edge. ———? Presented by Captain Sir Edward Belcher, K.C.B., R.N.

q. In spirits. Half grown. Tail black, spotted on all parts. Presented by Capt. Sir Edward Belcher, K.C.B., R.N.

Var. 6. Gullet and side of throat black varied; hinder part of the sides with a black streak or series of black spots; tail black varied and dotted.

r. In spirits. Adult. Hinder part of sides with a series of large round black spots. India. Presented by General Hardwicke.

s. In spirits. Young. Lateral spots few, round. ———? Presented by Capt. Sir Edward Belcher, K.C.B., R.N.

t. In spirits. Half grown. Lateral spots confluent, in a continuous streak. New Zealand. From Mr. Argent's collection.

* *Yellow, with dark dorsal and ventral alternate half rings.*

2. The RINGED PELAMIS. *Pelamis ornata*, Gray, *Zool. Misc.*

60. *Hydrus Pelamis*, var., Schlegel, *P. S.* 511. *Faun. Japon.* t. 8. White, with black dorsal and ventral alternating half rings: head white, black varied.

a. In spirits. Young. Borneo.

b. *Scales square or six-sided, imbedded side by side, smooth, or ventral ones with a central tubercle: head moderate, rather compressed; gape moderate; labial shield narrow, high, erect; eyes over the fourth shield.* *Lapemina*.

2. LAPEMIS.

Head moderate, rounded in front; gape moderate: scales of back small, regular, square; those on the lower part of the sides and belly larger, rather six-sided, smooth, or sometimes marked with a central tubercular keel; nostrils on the hinder part of the nasal shield, with a groove from the front angle to the lower edge.

Lapemis, Gray, *Zool. Misc.* 60, 1842. *Hydrophis* sp., Cuvier, *R. A.* ii. 74. *Enhydriis* sp., Merrem, *Tent.* 140. *Pelamis* sp., Daud. *Rept.* vii. 270. Cuvier. Merrem.

* *Ventral scales smooth.*

1. The SHORT LAPEMIS. *Lapemis curtus*, Gray, *Zool. Misc.* 60. *Hydrus curtus*, Shaw, *Zool.* iii. 560. *H. Enhydrys curtus*, Merrem, *Tent.* 140. *Pelamis curtus*, Gray, *Griffith A. K.*

Yellow in spirits; back with dark cross bands; one anterior and one posterior ocular; ventral scales smooth.

Var. 1. Lower lip with a series of small, triangular, marginal shields.

- a. In spirits. India? Eyes over the fourth and fifth labial shields, the sixth erect, narrow; temple with small scales; the front temple shield like the sixth labial, and erect. Old collection. Described by Dr. Shaw as *Hydrus curtus*.
- b. In spirits. India? Eye over the fourth labial shield, the fifth trigonal, the sixth and seventh small, marginal; temporal shields 3, two lower erect, upper subtrigonal. Old collection.

Var. 2. Lower lip with large labial shield, and only one small, triangular, marginal scale.

- c. In spirits. Eye over fourth labial shield, fifth triangular; temple shielded; upper shield largest, elongate, margining the small occipital shield. Madras. Presented by J. C. Jerdon, Esq.

** *Dorsal and lateral scales smooth, ventral keeled.*

2. HARDWICKE'S LAPEMIS. *Lapemis Hardwickii*, Gray, *Zool. Misc.* 60. *Illust. Ind. Zool.* t. *Hydrophis pelamidoides*, Schlegel, *Phys. Serp.* 512, t. 18, f. 16, 17. *Faun. Japon.* t. 9.

Back olive, yellow cross-banded; belly yellow; scales very large; body rather short, thick; head moderate; loreal shield none, one anterior and one posterior ocular: tail black.

- a. In spirits. Half grown. Scales of back smooth; head blackish, with a band across the forehead in front of eyes. India. Presented by General Hardwicke.
- b. In spirits. Adult. Scales of front part of back slightly keeled; head with a frontal cross band, and a streak along the temple. Borneo? Presented by Capt. Sir Edward Belcher, K.C.B., R.N.
- c, d. In spirits. Adult. Head black with a distinct pale streak on each temple; scales of back smooth.

- e. In spirits. Adult. Head black, white-spotted; no distinct temple streak; scales of back keeled, of belly very strongly keeled. Philippine Islands. From Mr. Cuming's collection.
- f. In spirits. Adult. Head with a large square loreal shield on one side? Borneo? Presented by Capt. Sir Edward Belcher, K.C.B., R.N.
- Lapemis loreatus*, Gray, *Ann. and Mag. Nat. Hist.* 1842, 46.

3. ATURIA.

Head moderate, rather short, rounded; eyes rather large, over the fourth and fifth labial shields: scales of the back and sides thick, six-sided, smooth, nearly equal; of neck more elongate, subimbricate; labial shield large; chin shields rather larger than those of the gullet; ventral shields rather large, the two central series united into a single broad six-sided plate.

Aturia, Gray, *Zool. Misc.* 41, 1842. Intermediate between *Lapemis* and *Hydrophis*.

* *Scales smooth.*

1. The ATURIA. *Aturia ornata*, Gray, *Zool. Misc.* 61.

Head slate-coloured: back with a series of large round spots, and a series of smaller round dark spots on the middle of each side, fifth upper labial smaller than the others; sixth and seventh very small, marginal, with two large high shields above them: temple shields rather large: chin shields one pair, oblong, six-sided, elongate; first five lower labial shields large, high; sixth small, marginal; rest of chin covered with small scales: the second upper labial plate very large, and the top of the fourth occupying the whole under edge of the eye: tail black, with rather broad whitish cross bands.

Var. 1. Lower labial shields 5-5, two front pairs narrow.

- a. In spirits; partly bleached. Two regular post-oculars on one side, and three irregular ones on the other. Indian Ocean? Old collection.
- b. In spirits Indian Seas. Presented by Capt. Sir Edward Belcher, K.C.B., R.N.

Var. 2. Lower labial shields 4-4, all broad; sides of body with large round spots.

- a. In spirits. Post-oculars 2; tail black, with white bands on the upper edge only. Madras. Presented by J. C. Jerdon, Esq.

**** Scales slightly keeled.**

2. BELCHER'S ATURIA. *Aturia Belcheri*.

Pale brown in spirits; back obscurely cross-banded; scales with a very slight short keel, occupying the centre of the scales, which is longest over the dorsal scales; lower labial shields 4-4, broad. Perhaps the adult of the preceding.

a. In spirits. Adult. New Guinea. Presented by Capt. Sir Edward Belcher, K.C.B., R.N.

3. The RINGED ATURIA. *Aturia Lapemoides*.

Whitish in spirits; neck with broad black rings; body with narrower black rings, which form rhombic spots on the back; head, throat and ventral line blackish; band across forehead and streak along the side of the head over the eyes white; tail black: scales of the neck lanceolate; of the body nearly square, with a slightly raised central keel, like *A. Belcheri*, but scales squarer.

a. In spirits. India, Ceylon.

b. In spirits. Younger. The black bands broader, leaving oblong white spots, only rather broader than the bands; scales smooth. India, Madras. Presented by J. C. Jerdon, Esq.

4. MICROCEPHALOPHIS.

Head small, rather depressed in front; neck slender, elongate; rostral shield broad, six-sided: labial shields, first upper triangular, small; second, third, fourth and fifth large; sixth smaller: temples with two large shields, one behind the other; hinder margining the occipital: lower rostral small; first to fifth lower labial narrow, high; the sixth and seventh small and square: chin shields two pairs: nasal slender, truncated in front: scales of neck elongate, and of body broad, short, six-sided, slightly keeled: ventral shields, of the neck six-sided, smooth; of the hinder part of the belly keeled; the scales of which they are formed often separate: pupil round (not linear, erect, as figured by Lesson).

Microcephalophis, Lesson, *Belanger, Voy. Rept.* 183 (not *Microcephalus*, as quoted by Schlegel, *Phys. Serp.* 508). *Liopala*, Gray, *Zool. Misc.* 60, 1842. *Hydrus* sp., Shaw, *Zool.* iii. 560. *Enhydrys* sp., Merrem, *Tent.* 141. *Hydrophis* sp., Cuvier, *R. A.* ii. 74. *Disteira* sp., Fitz. *N. Syst. Rept.* 55, 1826. *Isis*, 1827, 733.

1. The KADELL NAGAM. *Microcephalophis graellii*, Lesson, *Belanger, Voy. Rept.* t. 3. *Liopala gracilis*, Gray, *Zool. Misc.* 60.

Hydrus gracilis, Shaw, *Zool.* iii. 560, young. *Merrem*, 141. *Disteira gracilis*, Fitz. *N. Syst. Rept.* 55. Kadell Nagam, *Russell, Ind. Serp.* t. 13, adult. *Hydrophis* Kadell, *Boie, Isis*, 1827, 554, from *Russell*.

Slate coloured, beneath paler: neck with narrow, rather distant cross rings: the dorsal scales of the middle of the body smallest, gradually increasing in size and in the strength of the keel as they approach the ventral series; chin shields one pair.

- a. In spirits. Young. Indian Seas. Old collection, named by Dr. Shaw. *Hydrus gracilis*.
- b. In spirits. Adult. India, Madras. Presented by J. C. Jerdon, Esq.
- c. In spirits. Younger. India, Madras. Presented by J. C. Jerdon, Esq.

- c. Scales ovate, six-sided, imbricate, keeled, or with the keel reduced to a tubercle in the centre of the scale: head and gape moderate. *Hydrina*.

Hydrina, Gray, *Zool. Misc.* 60, 1842. *Hydrophis*, *Daud. Rept.* vii. 372.

- * Labial shields occupying the greater part of the lips: eyes over the fourth, or rarely over the third, or the fourth and fifth labial shields: ventral shields six-sided, formed of two united scales, which are rarely separated.

5. ENHYDRINA.

Head moderate, rounded in front: rostral small, erect: upper labial shields, first triangular or band-like, high, margining the nasal; second, third and fourth large (fourth under the eyes); fifth, sixth and seventh very small, triangular: temporal shields, three above the latter large, unequal; middle one large, linear, erect: lower rostral elongate, sunk in a deep groove: lower labial, first to fifth elongate, band-like; the first very large; second short; the sixth and seventh low, band-like, marginal: chin shields one pair, lateral, far apart; nasal shields narrowed, subacute in front: eyes rather large: scales of neck narrow, of hinder parts broader: ventral shields narrow, two-keeled, irregular; of throat narrow, like the scales, scarcely distinguishable.

Hydrophis, § a, Gray, *Zool. Misc.* 1842. *Disteira* sp., Fitz.

* *The first upper labial very long : eye rather large.*

1. The BENGAL ENHYDRINA. *Enhydrina bengalensis*. *Hydrophis bengalensis*, Gray, *Zool. Misc.* 62.

Head rather small: one anterior and two posterior ocular shields: the front upper lip shield very long, strap-like, extending the whole length of the outer side of the nasal plate: reddish, beneath white in spirits: back with narrow cross-bands: scales with a short central raised keel, extending rather more than half the length of the scales of the middle of the body: of the under-side rather larger, with a short central tubercle in the place of the keel: ventral shield rather irregular, like ventral scales, but generally two-keeled; shields on side of chin, under the lower labial shields, larger, two or three pairs.

- a. In spirits. Adult male. The front upper labial on one side divided into two plates. Bengal. Presented by General Hardwicke.
- b. In spirits. Half grown. Madras. Presented by Thomas Boileau, Esq.

** *The front upper labial triangular.*

2. The VALAKADYEN. *Enhydrina Valakadyen*. *Hydrophis subfasciata*, Gray, *Zool. Misc.* 62. *Valakadyen*, Russell, *Ind. Serp.* i. t. 11 (good). *Hydrus Valakadyn*, Boie, *Isis*, 1827, 554. *Hydrophis Schistosa*, Schlegel, *Phys. Serp.* 500, t. 18, f. 1—3 (not Daud.) *Disteira Russelii*, Fitz. *Isis*, 1827, 733.

Head rather large: gray, back with narrow dark cross-bands; beneath white: one anterior and one posterior ocular shield: the front upper labial shield moderate, subtriangular, reaching half-way up the outer edge of the nasal plates; the front lower labial plates with small scales like shields beneath them: scales with a short central raised keel, of middle of under-side rather larger: ventral shields with two keels.

- a. In spirits. Adult. Partly bleached. India, Bengal. Presented by Dr. P. Russell.
- b. In spirits. Smaller. The frontal shield on side is bent down, occupying the place of (perhaps united to) the anterior ocular shield, but on one side there is a very small shield at the upper angle of the front of the eye. India. Presented by General Hardwicke.
- c. In spirits. Adult. India, Madras. Presented by J. C. Jerdon, Esq.

d. In spirits. Young. Tail pale-banded. Indian Seas. Purchased at Mr. Stevens's sale.

e. In fluid. Adult; not good state. Scales more lanceolate and less keeled? Madras. Presented by J. C. Jerdon, Esq.

Schlegel, *Phys. Serp.* 502, states that Hoogli Pattee, *Russell, Ind. Serp.* t. 10 (*Hydrophis Schistosus*, *Daud. Rept.* vii. 386; *Pelamis Schistosus*, *Merrem*, 139; *Leioselasma Schistosa*, *Fitz. Isis*, 1827, 737), is a half-grown specimen of this species; but this is inconsistent with Russell's description and figure of the head shields.

6. HYDROPHIS.

Head moderate, rather short: nasal shield moderate, four-sided, truncated, or slightly notched in front: rostral shield broad, short, five-sided, three-toothed below: labial shields large, occupying more than half the front of the lips; the first upper square, moderate; the second, third and fourth large, the fourth under the eye (or sometimes divided into two shields under the eye): the four or five lower labial shields large, band-like; the rest small, triangular; there are sometimes some small triangular scales on the edge of the lower lips above the other shields: lower rostral shield triangular: temple shielded: scales of the body with a central keel (less distinct in the young specimens); of the belly broader; of the neck longer, narrower, and less keeled: ventral shield moderately broad, six-sided, often two keeled; of the throat narrower.

Hydrophis, *Daud. Rept.* vii. *Gray, Ann. Phil.* x. 1825, 207 (*H. nigrocinctus*). *Hydrophis*, § 2, *Gray, Zool. Misc.* 61, 1842. *Hydrophis* sp., *Cuv. R. A.* ii. 74. *Enhydria* sp., *Merrem, Tent.* 140. *Polydontes*, *Lesson, Belanger, Voy. Zool. Rept.* t. 4. ? *Disteira*, *Lacep. Ann. Mus.* iv. 199, 210, t. 57, 2. *Gray, Ann. Phil.* 1825, x. 207. ? *Leioselasma*, *Lacep. Ann. Mus.* iv. 198, 210, t. 57, f. 1.

Boie observes that he could not find the type specimens of Lacepede's genera, *Disteira*, *Leioselasma* and *Aipysurus*, in the Paris Museum, (*Isis*, 1827, 553).

* Head small, rather depressed; neck very slender, elongate.

† Scales of adult, narrow; ventral shield wide, elongate.

1. The SHOOTUR SUN. *Hydrophis obscura*, *Daud. Rept.* vii. 375. Kalla Shootur Sun, *Russell, Ind. Serp.* i. t. 8 (good). *Pela-*

mis obscurus, *Boie, Isis*, 1827, 553. *Hydrus Pelamis obscurus*, *Merrem, Tent.* 139. *Leioselasma obscura*, *Fitz. Isis*, 1827, 738.

Black; head with a yellow spot on each side of occiput; back of neck with a series of round pale spots on each side, nearly united above: body with a series of large roundish white spots, nearly as high as the body, leaving triangular dark marks on the upper and lower part of the body: scales small, elongate, keeled: ventral shield under the throat very distinct, elongate, black; of the belly white, not to be distinguished from the scales.

- a. In spirits. Head injured. India, Madras. Presented by J. C. Jerdon, Esq.
- b. In spirits. Young. India. Scales six-sided, very slightly keeled. Presented by T. E. J. Boileau, Esq.

2. LINDSAY'S SHOOTUR SUN. *Hydrophis Lindsayii*, *Gray, Griffith's Anim. Kingd.* *Aturia Lindsayi*, *Gray, Zool. Misc.* 61.

Head, neck and tail black; nape with two white spots: back of the neck and front part of the body with cross bands, which gradually become larger and form ovate spots on the sides, which are confluent on the middle, and narrower but longer on the hinder part of the body, forming only narrow bands across the tail: scales small, with a minute central tubercle: front upper labial short, square; sixth larger (like the sixth shield of *Liopola* and the one above it united): temple shield large, oblique: four front lower labial large; two hinder small: chin shields two pairs; front large, square. Like *H. obscurus*, but white spot broader.

- a. In spirits. Very young. China. Presented by — Lindsay, Esq.

Shootur Sunn, *Russell, Ind. Serp.* ii. t. 7; *Hydrophis chloris*, *Daud. Rept.* vii. 377, t. 90; *Hydrus chloris*, *Merrem, Tent.* 139, appears to be another species of this section. Black above, with yellow cross-band on the back of the neck, and large triangular spot on each side of the belly.

†† *Scales of adult broad.*

3. The BANDED SHOOTUR SUN. *Hydrophis fasciata*. *Hydrus fasciatus*, *Shaw, Zool.* iii. 563? *Hydrophis Hardwickii*, *Gray, MSS. Brit. Mus.* 1836. *Disteira fasciata*, var., *Fitz. Isis*, 1827, 734.

Head very small; body and tail brown, yellow-ringed; head and neck brown; a cross-band on the forehead, spot on temple behind

eyes, broad oblong bands across the back of the neck, and upper part of the front of the body, yellow : scales with a narrow keel, occupying about half the length of the dorsal and a small central part of the ventral scales ; of the neck nearly smooth.

a, b. In spirits. Adult and half grown. India, Bengal. Presented by General Hardwicke.

Hydrophis Hardwickii, Gray, MSS. Brit. Mus. 1836.

c. In spirits. Young. Indian Ocean. From Mr. Russell's collection ; named by Dr. Shaw.

Hydrus fasciatus, Shaw, Zool. iii. 563. *Schneid. Amph.* 240.

Liopola fasciata, Gray, Zool. Misc. 60.

4. The KERRIL. *Hydrophis nigrocincta*, Daud. Rept. vii. 580. Gray, Ann. Phil. x. 207. *Schlegel, Phys. Serp.* 505, t. 18, f. 5—7, (89, 10 ?) *Hydrus* (*Enhydris*) *nigrocinctus*, Merrem, Tent. 140. *Anguis Xiphura*, Herm. Obs. Zool. 1288. Kerril Pattee, Russell, Ind. Serp. ii. t. 6. *Leioselasma nigrocincta*, Fitz. Isis, 1827, 738.

Head rather small : above greenish in spirits, dusky ; beneath yellow, with close, rather narrow, dark brown rings : head yellow ; front of upper lip, crown, and band from the angle of the mouth across the nape, brown : rostral plates broad and low : one anterior, two posterior oculars : lower rostral plates triangular : the four front lower lip plates large, the hinder pair much the largest, rest small : chin shields two pairs : tail regularly and equally brown, and yellow-banded : temple shielded, the central shield larger than the others : scales with a very narrow, slight, elongate keel ; of the lower part of the body with a stronger keel, forming a ridge occupying about half the length of the central line of the scales.

a. In spirits. Bengal. Presented by General Hardwicke.

††† Scales rather elongate, largely keeled.

5. The BLACK-HEADED KERRIL. *Hydrophis doliata*, Gray, Zool. Misc. 6. *Disteria doliata*, Lacep. Ann. Mus. iv. 199, t. 10, f. 2 ? Gray, Ann. Phil. x. 1825, 207. Fitz. Cat. Gray, App. King's Voy. ? *Enhydris doliatus*, Merrem, Tent. 140.

Grayish white, back with darker bands ; head, throat and streak on the front of belly black : scales with an elongated, regular, narrow keel, ending in a tubercle at the end, the keel and subterminal tubercles being more distinct on the lower and hinder part of the body ; of tail broad and smooth : lower lip with a marginal series of triangular scales : the second and third upper labial shields nearly equal : one large anterior and two small posterior oculars.

- a. In spirits. Adult. White, with dark cross-bands; head and ventral shields black; the eyes over the fourth, fifth and the end of the third labial shields. Australia. Presented by Capt. P. P. King, R.N.

D. doliata, Gray, in *King's Voy. App.*

- b. In spirits. Young. Head and ventral shields black; body white; back with broad, oblong, transverse black spots, and alternating narrow black cross-bands, and sides with a series of round black spots; keels only to be observed on the black scales; nasal shield, with a small broad shield on each side between it and the upper edge of the front labial: eye over the broad fourth shield. N. Coast Australia, Port Essington. From Mr. Gilbert's collection.

Aturia elegans, Gray, *Zool. Misc.* 61.

**** Head moderate, rounded in front; neck moderate, thick.**

† *Scales rather broad, slightly keeled.*

6. SHAW'S CHITTUL. *Hydrophis subcincta*, Gray, *Zool. Misc.* 63. *Hydrus major*, var., Shaw, *Zool.* iii. 559.

Above pale blackish ash in spirits, with some whitish cross-bands; whitish beneath: one anterior and two posterior oculars: temporal shield large, triangular: head rather small; neck much slenderer than the body: second upper labials very large, oblique; the lower lip with a small, triangular, marginal scale; chin shields two pairs: scales with a very slight, short, tubercular-like keel near the end of those of the neck, and in the middle of the other scales, most distinct in the ventral scales; ventral shield rather broad, with two small tubercles, and very often marked with a central groove.

- a. In spirits. Indian Ocean. Old collection. Described by Dr. Shaw.

Hydrus major, var., Shaw.

7. The CHITTUL. *Hydrophis sublævis*, Gray, *Zool. Misc.* 62. Chittul, Russell, *Ind. Serp.* i. t. 9. *Hydrus cyanocinctus*, Boie, *Isis*, 1827, 554, from Russell. *Hydrophis cyanocinctus*, Daud. *Rept.* viii. 383. *Hydrus Brugmansii*, Boie, *Isis*, 1827, 554, fide Schlegel. *Enhydris cyanocinctus*, Wagler, *Syst.* 166. *Leioselasma cyanocinctus*, Fitz. *N. Class.* *Hydrophis nigrocinctus*, adult, Schlegel, *Phys. Serp.* 585, t. 18, f. 8—10 (not 6—8 as cited).

Yellow, black varied: body with irregular black rings: back of neck with broad black cross-bands: lips and beneath pale: scales

nearly smooth; of the hinder part of the back rather concave, with a central ridge which looks like a keel: ventral shield broad, six-sided, smooth, sometimes divided into two or marked with a slight central groove; occipital shields large, triangular, produced behind with a small central shield behind them, and a series of four large temporal shields on their outer side; chin shields two pairs: eyes very small, over the narrow fourth and fifth labial shields: temporal shield large; nasal shield small; frontal smaller: one anterior and two posterior ocular shields; the second upper labial shield elongated.

a. In spirits. Adult; nearly bleached. Indian Ocean.

b. In spirits. Adult. Black-banded. China. Presented by J. R. Reeve, Esq.

c. In spirits. Half grown. Black-ringed. ———? Presented by the College of Surgeons.

d. In fluid. Adult. Black-ringed. Eye over the oblique third and fourth shield. Madras. Presented by J. C. Jerdon, Esq.

e. In fluid. Aged. Black-ringed. Plate under eye divided obliquely into two. Ceylon. Presented by R. Templeton, Esq.

Var. 1. *Melanocephala*. Throat black; head pale dotted; back of neck black, cross-banded; body with black rings.

f. In fluid. Adult. Indian Ocean. Presented by Capt. Sir Edward Belcher, K.C.B., R.N.

g. In fluid. Young. Madras. Presented by J. C. Jerdon, Esq. *Polyodontes annulatus*, Lesson, *Belanger, Voy. Rept. t. 4.*

8. The PALE CHITTUL. *Hydrophis mentalis*, Gray, *Zool. Misc.* 62.

Pale whitish in spirits, with indistinct, broad, dark cross-bands on the back: head rather large, very short, broad, blunt: eye small, over fourth and hinder angle of third labial shield: scales rather broad, with a narrow keel reaching more than half the length: lower lip with a series of very shallow oblong scales; the second and third lower labial elongate, reaching the margins of the broad shield below them: the lower rostral plate slender, trigonal: chin shields moderate: one anterior and two posterior oculars.

a. In spirits. Indian Ocean. Old collection.

9. The EYED CHITTUL. *Hydrophis ocellata*.

Pale in spirits: back with an alternate series of large, oblong, transverse, pale-centred, and of smaller round dark spots: sides with three series of round spots, those of the upper series largest: tail with a series of oblong transverse spots on the upper and lower edge: head large, blunt, olive; scales rather small, in many series broad,

six-sided, with a very slight central tubercle; of neck larger, smoother: one anterior and two posterior oculars: body much compressed, high: ventral shield small, six-sided, from the throat, smooth.

a. In spirits. Australian seas? Presented by the Earl of Derby. From Mr. Macgillivray's collection.

10. The SHIDDIL. *Hydrophis spiralis*. Shiddil, *Russell, Ind. Serp.* i. t. 12. *Hydrus Shiddil*, *Boie, Isis*, 1827, 554. *Aturia spiralis*, *Gray, Zool. Misc.* 61. *Hydrus spiralis*, *Shaw, Zool.* iii. t. 125. *Enhydris spiralis*, *Merrem, Tent.* 140. *Gray, Ann. Phil.* x. 207, 1825. *Leioselasma spiralis*, *Fitz. Cat.* *Hydrophis nigrocincta*, part, *Schlegel, Phys. Serp.* 505? *Hydrophis melanura*, *Wagler, Amph.* t. 3.

Olive-green, beneath yellow, with a series of round black spots, smallest on the middle of the body: back with rather narrow close black rings, forming a line along the belly: tail black, with three unequal red rings at the base: the fourth upper labial shield under the eye: in spirits pale yellowish ringed with brown, beneath whitish: head moderate, black, with a horse-shoe-shaped yellow band: first upper labial shields small, square; second to sixth large, high; last triangular, with a large scale above it: temple shield short, broad: one anterior and two posterior oculars: three front lower labial shields and fifth triangular, very small, with band-like shields behind them; sixth band-like; seventh smaller: chin shields two pairs, equal: body subcylindrical, slender.

a. In spirits; has been dried. Indian Ocean? Presented by Dr. Russell. Described and figured by Dr. Shaw.

Hydrus spiralis, *Shaw, l. c.* t. 125.

b. In spirits. Indian Ocean. Presented by Sir James Mc'Grigor.

c. In spirits. Indian seas. The two lower labial shields on one or both sides triangular, with a band-like shield below them. Presented by Sir James Mc'Grigor.

11. The RINGED SEA SNAKE. *Hydrophis subannulata*.

Black; sides of body and tail with ovate or lanceolate white spots, which generally unite; olive over the centre of the back, forming rings, which are incomplete beneath; crown and lips yellow-spotted; two spots in front of nose plates, a band across forehead in front of eyes, and some spots on crown and at back angle of the eyes; neck with a narrow white ring; hinder part of chin and angle of the gape white varied: scales lanceolate, very obscure, keeled; keel narrow, extending rather more than half the length of the dorsal scales (most seen in the black scales): one small anterior and

two posterior oculars: lower lip edged with a series of triangular scales.

a. In spirits. India. Presented by the Zoological Society.

†† *Scales rather elongate, tubercularly keeled.*

12. The ROUGH SEA SNAKE. *Hydrophis aspera*.

Pale: back with lozenge-shaped cross-bands: tail dark: scales with a strong short keel, with two or three tubercles on it; of the front part of body lanceolate, and the hinder part and under-side broader: ventral shield (of two united scales) from the throat, with two distinct tubercular keels: head moderate, short, thick; head shields granular: one anterior and two posterior oculars: lower labial shields small, triangular, with band-like shield between them: upper labial shields moderate; second largest; sixth small, triangular, with a rather large shield above it: chin shields one pair, moderate.

a. In spirits. Singapore? From Mr. Gardener's collection.

1. *Hydrophis striata*, Boie, *Faun. Japon.* t. 7; *Schlegel, Phys. Serp.* 502, t. 18, f. 4, 5, may be intended for this species; but Schlegel's description is so general that it rather fits the genus than any particular species.

2. *Hydrophis hybrida*, *Schlegel, Abbild.* 115, t. 37, appears also to be allied to this species: perhaps a variety, with the dorsal spot smaller.

13. The BLUISH SEA SNAKE. *Hydrophis cærulescens*, Gray, *Zool. Misc.* 6. *Hydrus cærulescens*, Shaw, *Zool.* iii. 561. *Enhydrius cærulescens*, Merrem, *Tent.* 140.

Above blackish ash in spirits, beneath whitish; side of the neck and base of the tail with white bands, of the body with roundish white spots; tail blackish ash: scales elongate, six-sided, with short subcentral tubercle-like keel; of the front of the body narrow, lanceolate, and the hinder part and under-side broad: ventral shields from neck with two short slight keels: head shields tubercular: lower rostral shield trigonal, sub-equilateral: the first, second and third lower labial shields large; fourth small, triangular, with large plates below it: chin shields one pair, moderate.

a. In spirits. Indian Ocean. Specimen described by Dr. Shaw.

H. cærulescens, Shaw.

b. In spirits. India, Bengal.

Var. 1. Scales with a smaller, more indistinct keel; anterior ventral shields narrow, ovate, smooth, with a distinct central groove; the hinder one broader, with two slight keels; chin shields small.

c. In spirits. India, Bengal? Presented by General Hardwicke.

7. CHITULIA.

Head elongate, rather depressed in front: nasal shields rather broad, four-sided, trimucronated in front: rostral shield broad, short, five-sided: labial shield large; first upper square, moderate; second, third and fourth large; hinder small, triangular: lower rostral triangular, small: the five front lower labials large, with some triangular marginal shields: chin shields two pairs, close together: temple shielded; occipital shield prolonged behind: eyes large, over the fourth labial shield: pupil round: neck moderately thick: scales of body six-sided, truncated, with a central keel; of neck thinner and smoother; of belly broader and rounded: ventral shields moderate, broad; of the neck smooth and more elongate.

1. The CHITULIA. *Chitulia inornata*.

Bluish gray; lips, lower part of sides and beneath white; tail dark bluish gray, with three or four narrow white cross-bands: head shield smooth: scales six-sided, with a very slight central tubercle; of neck more elongate and smooth: one anterior and two posterior equal ocular scales: temple with two shields; the lower triangular; the upper elongate, margining the occipital shield, with a small triangular shield behind it.

a. In spirits. Adult. Indian Ocean. Presented by Capt. Sir Edward Belcher, K.C.B., R.N.

2. The KEELED CHITULIA. *Chitulia fasciata*.

White in spirits; crown and lips olive; back of neck and body with broad squareish cross-bands, leaving a narrow white cross-band, the dark band becoming more angular and wider apart on the hinder part of the back: scales concave, with a round central keel, which is higher and more raised at the end on the belly; scales of the neck scarcely keeled.

a. In fluid. Indian Ocean. Presented by Capt. Sir Edward Belcher, K.C.B., R.N.

The Hoogli Pattee, *Russell, Ind. Serp.* i. t. 10. *Hydrophis Schistosus*, *Daud. Rept.* vii. 386. *Pelamis Schistosus*, *Boie*.

Schlegel (*Phys. Serp.* 502) regards it as the adult of *E. Valakadyn*; but the form and size of the head is opposed to that theory, and it most probably belongs to this genus.

8. KERILIA.

Head moderate, rather small, rather narrow and shelving in front: neck moderate: nasal shield short, broad, truncated in front: frontal shields small, triangular: rostral shield broad, five-sided: upper labial shields all large; the first square, smallest; sixth largest; third and fourth under the eye: lower rostral moderate, triangular: first, second and third lower labial shields rather large; first highest; the fourth and fifth rather smaller, lower: chin scales one pair: scales very large, broad, six-sided, keeled, in 24 or 26 longitudinal series: ventral shields six-sided, two-keeled; anterior ones nearly smooth; all rather convex, with the sides folded together, forming a rather blunt ventral keel: eyes rather large; pupil round.

1. The KERILIA. *Kerilia Jerdonii*.

White in spirits: back grayish, with (about 46) irregular broad black rings: face in front of eyes black: end of nose and chin gray: head shields smooth, polished: scales large, broad, six-sided, keeled: keel dark brown, horny, rather tubercular at the end; scales of the neck shorter and subcentral, with a tubercle.

a. In spirits. Adult? Madras. Presented by J. C. Jerdon, Esq.

Doubtful species.

1. *Leioselasma striata*, *Lacep. Ann. Mus.* iv. 198, 200, t. 57, f. 1. *Enhydris striatus*, *Merrem, Tent.* 146.

2. *Disteria doliata*, *Lacep. Ann. Mus.* iv. 210.

3. *Tatta pam*, *Russell, Ind. Serp.* ii. t. 44. *Anguis mamillaris*, *Daud. Rept.* vii. 546. *Typhlops mammilaris*, *Merrem, Tent.* 158. *Hydrophis gracilis*, part, *Schlegel, Phys. Serp.* 508.

- ** *Labial shields occupying only the front half of the lips : eyes over the fifth or sixth shield : hinder part of lips covered with small scales : ventral scales generally free, two-rowed, forming a keeled ridge, or sometimes united in pairs into a flattish six-sided shield.*

9. HYDRUS.

Scales elongate, lanceolate ; of the neck longer and more acute, keeled : eyes small ; pupil round.

Hydrus, *Gray, Zool. Misc.* 60, 1842. Hydrus sp., *Shaw, Zool.* iii. 558. *Pelamis* sp., *Merrem.*

1. The SEA SNAKE. Hydrus major, *Shaw, Zool.* iii. t. 124. *Gray, Zool. Misc.* 60. *Pelamis Shawii, Merrem, Tent.* 139? Hydrus *Stokesii, Gray, in Stokes's Australia, App.* 4, t. 3.

White in spirits ; dorsal and ventral edge with alternate broad and narrow black cross-bands ; sides with a series of small roundish spots, becoming nearly uniform whitish when adult ; labial shield reaching to the eye.

Var. 1. Hinder labial shield small, triangular, with the scales above them larger and transverse.

a. In spirits. Half grown. Anterior ocular moderate ; hinder ocular shields 3, small ; ventral shields almost all separate. India. Old collection. Described by Dr. Shaw.

H. major, Shaw, Zool.

b. In spirits. Half grown. Anterior ocular 1, posterior 2 ; the front ventral shield united into cordate, smooth plates ; rest lanceolate, separate. Port Essington. Presented by the Earl of Derby.

c. In spirits. Very young. Scales short, blunt, polished, very obscurely keeled : white ; back with alternate broad and narrow black cross-bands ; sides with a series of roundish black spots, and with an alternate series of small black spots and short cross-bands. Port Essington. Presented by the Earl of Derby.

Var. 2. *Stokesii.* The hinder labial shields moderately large, subtriangular, rather high, as large as the series of scales above them.

d. In spirits ; bleached. Adult. Hinder ocular 2. Australian Ocean. Presented by Captain Stokes, R.N.

Hydrus Stokesii, Gray, l. c. t.

2. The RINGED SEA-SNAKE. *Hydrus annulatus*.

Yellow, with irregular black rings; hinder ocular 2, and an oblong inferior ocular between the eyes and labial shields.

a. Adult. Singapore. From Mr. Gardener's collection.

c. *Ventral shields broad, six-sided, keeled in the middle, with sides folded together; body covered with smooth polished scales.*

10. TOMOGASTER.

Tomogaster, *Dum. & Bib. MSS. Voy. Pol. Sud. Oph. t. 6*, not described.

Head rather small, regularly shielded; crown flattened: rostral broad, six-sided; nasal large, superior, close; frontals one pair, transverse, truncated in front, with two angles behind; vertebral and occipital well developed; superciliary one over each eye large: one large anterior and two posterior oculars: labial shields square, the fourth upper under the eye: temple shielded: chin shields two pairs: body subcylindrical, slightly angular; belly keeled, especially behind: scales ovate, smooth, thin, rather polished: ventral shield broad, six-sided, keeled, entire: tail compressed: scales smooth, upper and lower series keeled and folded together. The scales have more the appearance of *Hydrina*, while those of *Stephanohydra* resemble the scales of *Elaps* and other terrestrial snakes.

1. The TOMOGASTER. Tomogaster Eydouxii, *Bibron, MSS. Voy. Pol. Sud. Ophid. t. 6*.

Slate-coloured, with cross-bands of roundish white spots united, forming pale triangular spots on the lower part of the sides; belly whitish; head black, not spotted; neck blackish.

a. In spirits. Indian Ocean. From the Paris collection.

"Tomogaster Eydouxii."

11. STEPHANOHYDRA.

Head rather large, depressed, rounded in front; head-shields numerous, unequal, smooth, polished; parietal largest; supra-orbital 3-3; front small, hinder largest; nasal large, superior; anterior ocular 1; posterior 3, unequal: labial shields large, high, the middle ones reaching to the lower edge of the orbit: rostral square, large, convex; inferior rostral small, triangular, with a rounded notch above; temple and throat covered with six-sided imbricate

scales: nostrils semilunar, superior, valvular, in the middle of a nasal shield: eyes moderate, rather superior; pupil round: body elongate, rather compressed, covered with small, polished, six-sided, imbricate scales: belly compressed, strongly keeled: ventral shields band-like, transverse; sides folded together, with a central notch in the middle of the hinder edge: tail strongly compressed, oblong, covered with a series of more or less broad transverse scales; the upper and lower edge strongly keeled, and covered with folded scales; the tip torn, covered with a single, large, compressed, conical scale.

Stephanohydra, *Tschudi, Wieg. Arch.* iii. 331, 1837. Hypotrophis, *Gray, Ann. and Mag. Nat. Hist.* 1846, in *Jukes' Narrat. Voyage of H.M.S. Fly*, ii. 334. Hydrophis sp., *Schlegel*.

Tschudi's snake from the Celebes is evidently the same as Mr. Jukes'. The figure and Latin description do not represent or mention the large size nor the keeled form of the ventral shield, which induced me (as it appears to have done M. Schlegel) to regard it as *Hydrophis*, which had not come under my examination.

1. JUKES' HYPOTROPHIS. *Stephanohydra fusca, Tschudi, Wieg. Arch. Naturg.* iii. 332, t. 8, 1837. Hypotrophis Jukesii, *Gray, Ann. & Mag. Nat. Hist.* 1846, and in *Jukes' Narrat. Voy. Fly*, ii. 334, t. 1. *Hydrophis pelamoides, var., Schlegel, Abbild.* ii. 5.

Pale olive-brown in spirits, rather paler beneath.

a. In spirits (without bones of body). Length 5 feet. Darnley Islands. Presented by J. B. Jukes, Esq.

B. *The head covered with scales like the body. The nostrils surrounded by a small continued ring. Eyes surrounded by a series of small scales. Labial shields serrated, with a larger series above them. Pupil round. Ventral shields very small, scale-like, separate, on each side of a keeled ridge. Rivers. Acrochordina.*

Hemiophis, fam. Nectophis, Fitz. Syst. Rept. 1842. *Colubroidea pars, and Bungaroidea, Fitz. N. Syst. Rept.* 29, 31, 1826. *Les Boas pars, genus Acrochordus, Schlegel, Phys. Serp.* 425. *Pholidophides, fam. 1, Atryphodonto pholidophides. 2. Chalinipholidophides, Ritgen, Nov. Act. Nat. Cur.* xiv. 1828, 259. *Achrochordinae, Bonap. Amp. Eur.* 7.

12. CHERSYDRUS.

Tail compressed, prehensile, sword-shaped: body fusiform, covered with small rhombic scales with a central tubercular keel.

Chersydrus, *Cuvier*, *R. A.* ii. 75, 1817, ed. 2, ii. *Merrem*, *Tent.* 138. *Chersydræus* (misprint), *Gray*, *Ann. Phil.* x. 1825, 207. *Hydrus* (*Chersydrus*), *Merrem*, *Tent.* 138, 1820. *Pelamis* sp., *Daud.* *Acrochordus* sp., *Shaw*, *Zool.* iii. *Schlegel*, *Phys. Serp.* 425.

1. The **CHERSYDRUS**. *Chersydrus granulatus*, *Merrem*, *Tent.* 138. *Hydrus granulatus*, *Schn. Amph.* i. 243. *Pelamis granulatus*, *Daud. Rept.* vii. 370. *Acrochordus fasciatus*, *Shaw*, *Zool.* iii. t. 130. *Schlegel*, *P. S.* ii. 420. *Boie*, *Isis*, 1827, 511. *Wiegman*, *N. Act. Leop.* xvii. 1835, 245.

Black, with alternating, transverse, ovate-lanceolate spots on each side; head white-spotted; tail with roundish white spots.

- a, b. In spirits. Nearly adult. Black, with a few narrow white stripes on each side. India. Old collection. Named by Dr. Shaw. *Acrochordus fasciatus*, *Shaw*, *Zool.* iii. t. 130.
- c, d. In spirits. Adult. Black; ventral keel white, with some narrow white stripes on each side behind. Presented by Capt. Sir Edward Belcher, K.C.B., R.N.
- e. In spirits. Young. Black; white spots larger and more distinct.

2. The **ANNULATED CHERSYDRUS**. *Chersydrus annulatus*. *C. granulatus*, var., *Gray*, *Zool. Misc.* 63.

Black, with broad yellow rings, which are generally interrupted on the back; head with many yellow spots; tail yellow-ringed.

- a. In spirits. Nearly adult. Head large. Singapore. Presented by General Hardwicke.
- b, c. In spirits. Nearly adult. Madras. Presented by J. C. Jerdon, Esq.
- d. In spirits. Young. Sumatra. From the Leyden Museum. *Acrochordus fasciatus*, *Schlegel*.
- e. In spirits. Young. Madras. Presented by Thomas E. Boileau, Esq.

13. ACROCHORDUS.

Tail moderate, conical, tapering; body fusiform, covered with tricuspid scales.

Acrochordus, *Hornstedt*, in *N. Schwed. Abh.* vii. 294, 1797. *Lacep. Quad. Ovip.* ii. 272. *Daud. Rept.* vii. 388. *Cuv. R. A.* ii. 72, ed. 2, ii. *Merrem*, *Tent.* 81. *Fitz. N. Syst.* 54, 1826. *Gray*, *Ann. Phil.* x. 207, 1825. *Zool. Misc.* 1842. *Boie*, *Isis*, 1827, 511.

Acrochordus sp., *Shaw, Zool.* iii. *Schlegel, Phys. Serp.* 425. *Lacep. Quad. Ovip.* ii. 472, t. 11, f. 2. *Shaw, N. Misc.* t. 148. *Zool.* iii. 573, t. 128. *Merrem, Tent.* 81. *Gray, Zool. Misc.* 63.

1. The ACROCHORDE. *Acrochordus Javanicus*, *Horst. Abh. Acad. Stock.* 1797; vii. 306, t. *Schlegel, Phys. Serp.* ii. 428. *Abbild.* 55, t. 17, f. 12, 14. *Boie, Isis*, 1827, 511. *A. Javensis*, *Daud. Rept.* vii. 390. *Cuvier, R. A.* ii. 72. *A. dubius*, *Shaw, Zool.* iii. t. 29, good.

Adult brown; young brown, with darker bands and streaks.

a. In spirits. Adult. Uniform brown. Old collection. Described by Dr. Shaw.

A. Javanicus, *Shaw, Misc.* t. 141.

b, c. In spirits. Young; with darker longitudinal streaks. India. Presented by General Hardwicke.

A. dubius, *Shaw, MSS. Brit. Mus.*, in *Zool.* iii. t. 129.

d. Stuffed. Adult. Java. Presented by the East India Company.

II. Tail conical, tapering. Belly with more or less broad band-like shields. Fluviate.

Hemiophodia, fam. *Pelophis*, *Fitz. Syst. Rept.* 1843. *Homalopsis* and *Pseudoeryx*, *Fitz. N. Class.* 55, 1826. *Hydrophidæ* pars, *Boie, Isis*, xx. 1827. *Serpents d'eau douce* pars, genus *Homalopsis*, *Schlegel, Phys. Serp.* *Colubridæ* pars, *Gray, Ann. Phil.* x. 1825, 208.

A. Head shielded. Tail scaly beneath. Nostril in a ring of small scales. The abdominal shield very small, six-sided, flat, keeled on each side, as if formed of two scales united. *Erpetonina*.

14. ERPETON.

Head moderate; crown shielded, with some small shields between the vertical and superciliary shields, a double set of labial shields, and a compressed scaly beard on each side of the muzzle: nostrils in the middle of a series of small scales: dorsal scales imbricate, keeled: abdominal shield small, long, narrow: subcaudal shields scarcely different from the other scales.

Erpeton, *Lacep. Bull. Soc. Philom.* 1801, xlv. 169. *Ann. Mus.* ii. t. 150. *Dumeril, Z. A.* 89. *Latr. Rept.* iv. 190. *Daud. Rept.* vii. 243. *Cuv. R. A.* ii. 68, ed. 2, ii. *Gray, Ann. Phil.* x. 1825, 209. *Zool. Misc.* 63, 1842. *Rhinopirus*, *Merrem, Tent.* 81,

1820. *Homalopsis* sp., *Schlegel, Phys. Serp.* 350. *Herpeton, Wagler, Syst. Amph.* 169.

1. The *ERPETON*. *Erpeton tentaculatus, Lacep. Ann. Mus. ii. t. 50. Latr. Rept. iv. 198. Boie, Isis, 1827, 511. Daud. Rept. vii. 246, t. 86. Guerin, Icon. Rept. t. 20, f. 3. Rhinopirus Erpeton, Merrem, Tent. 12. Homalopsis Herpeton, Schlegel, Phys. Serp. 359. Abbild. 50, t. 16.*

Pale brown, with the whitish streaks continued on the tail.

Inhabits ———? *Mus. Paris*; from the old Dutch collection.

B. Head shielded. Tail with two series of shields beneath. Nostrils superior, between two plates. Abdominal shields broad, keeled on each side: scales smooth. *Bitiana.*

15. BITIA.

Head small; crown shielded: frontal plates 3; anterior between the two larger nasal plates; posterior very small, rudimentary: upper nasal scale the smallest, at the upper hinder angle of the larger ones: vertebral plate longitudinal, rather larger than the rather narrow superciliary shields: occipital plates trigonal, placed in pairs; one triangular rather large loreal; one high band-like anterior and a larger inferior and small superior posterior ocular: front upper labial shields moderate, hinder very large: body elongate, slender, rather compressed: dorsal scales smooth: ventral shields keeled on each side: tail short, conical, subtrigonal, end compressed, sharp-edged above.

1. The *BITIA*. *Bitia hydroides.*

Lead-coloured in spirits, with broad blackish cross-bands: head blackish; throat and beneath whitish.

a. In spirits. ———?

C. Tail with two series of shields beneath. Nostrils in centre of a large nasal shield, with a groove from their outer end to the outer side of the shield. Ventral shield broad, rounded. Frontal shields 3, or rarely 2 or 4, small; anterior one sometimes divided; generally one anterior and two posterior oculars. Scales, when nearly dry, often minutely longitudinally grooved. *Cerberina.*

a. Crown scaly; occipitals rudimentary; frontals 4, anterior very small.

16. CERBERUS.

Head dilated behind; crown scaly; face shielded to the eyes: anterior frontal small; superciliary small; vertical rudimentary

or none; occipital none: front upper labial shields narrow and high, hinder divided: loreal small: one or two small shields under the eyes: body elongate, round; tail conical: scales all keeled, very minutely and longitudinally striated.

Cerberus, Cuvier, *R. A.* ii. 81, ed. 2. Homalopsis sp., Kuhl. *Isis*, 1827, 521. Wagler, *Syst. Amph.* 169. Hurria sp., Daud. *Rept.* v. 275, viii. 385, from Hurria, *Rup.* i. t. 40. Python sp., Merrem, *Tent.* Coluber (** Homalopsis), Gray, *Ann. Phil.* 1825, x. 208. Hydrus sp., Shaw, *Zool.* iii. Enhydris sp., Latr. *Rept.*

* Sides, streak white.

1. The KAROO BOKADAM. Cerberus cinereus, Gray, *Zool. Misc.* 64. Cantor, *Proc. Zool. Soc.* 1838, 54. Coluber cinereus, Daud. *Rept.* Karoo Bokadam, Russell, *Ind. Serp.* i. t. 17. Hydrus rhynchops, Schneid. *H. Amph.* i. 246. Enhydris rhynchops, Latr. *Rept.* iv. 202. Coluber cerberus, Daud. *Rept.* vii. 167. Hydrus cinereus, Shaw, *Zool.* iii. 567. Python rhynchops, Merrem, *Tent.* 90. Homalopsis rhynchops, Boie, *Isis*, xx. 550. Seba, *Thes.* ii. t. 15, f. 3. Elaps Boæformis, Schneid. *Hist. Amph.* ii. 301. Boa moluroides, Schneid. *Hist. Amph.* ii. 279. Coluber Schneiderii, Daud. *Rept.* vii. 170. Hurria Schneideriana, Daud. *Rept.* v. 281, viii. 385. Python molurus, Merrem, *Tent.* 99. Homalopsis molurus, Boie, *Isis*, xx. 550. Python elapiformis, Merrem, *Tent.* 89. Coluber, No. 40, Russell, *Ind. Serp.* ii. t. 40. Cerberus Russelli, Cuvier, *MSS. Mus. Paris*, fide Schlegel. Homalopsis Schneideri, Schlegel, *Phys. Serp.* 341, t. 13, f. 6, 7. Coluber obtusatus, Reinw.

Scales ovate, rounded at the end: brown, with rather close, narrow, black cross-bands; lips and throat white, black-spotted; sides white; belly black, yellow-mottled; tail blackish, sides slightly pale-spotted (colour darker when young): sixth labial under the eye, hinder one double.

a—c. In spirits. Young. India. Presented by General Hardwicke.

d. In spirits. Young. India. Lower series of scales on hinder part of the body, before the vent acutely keeled. Presented by General Hardwicke.

e, f. In spirits. Half grown and young. Borneo. From Mr. Lowe's collection.

g. In spirits. Half grown. Madras. Presented by Thomas Boileau, Esq.

h. In spirits. Adult. India. Presented by the Royal College of Surgeons.

i. In spirits. Adult. Batavia.

- k.* In spirits. Adult. India. Presented by Dr. Patrick Russell.
- l.* In spirits. Adult. Borneo. Presented by James Brooke, Esq.
- m—p.* In spirits. Adult and young. Madras. Presented by J. C. Jerdon, Esq.
- q.* In spirits. India. Presented by the Earl of Derby.
- r.* In fluid. Ceylon. Presented by R. Templeton, Esq.
- s, t.* In fluid. Adult. Lateral streak distinct, white; belly black-spotted. Philippines. From Mr. Cuming's collection.
- u, v.* In fluid. Adult. Lateral streak nearly obliterated; belly very dark. Philippines. From Mr. Cuming's collection.
- w.* In fluid. Young. Var. —? Olive above and below, slightly yellow varied; side-streak broad, $3\frac{1}{2}$ series of scales wide, uniform yellow; anterior frontal 2, separate. Borneo. From Mr. Lowe's collection.

2. The BORNEAN BOKADAM. *Cerberus acutus*. *Homalopsis Schneiderii*, var. Borneo, *Schlegel, Phys. Serp.* 341.

Scales lanceolate, very acute: lead-coloured (adult, in spirits); lips, lower part of the sides and beneath white; belly dark marbled; cheek-streak none.

- a.* In spirits. Adult. Borneo. From the Leyden Museum, as "Homal. Schneideri, *Schlegel*."

** Back and sides one-coloured.

3. The PHILIPPINE BOKADAM. *Cerberus unicolor*.

Uniform dull dark bluish gray above and below; scales sharply and strongly keeled, rounded at the end; head-shields rather convex; cheek-streak none.

- a.* In fluid. Adult. Philippines. From Mr. Cuming's collection.

4. The AUSTRALIAN BOKADAM. *Cerberus australis*. *Homalopsis australis*, *Gray, Zool. Misc.* 64.

Slate-black, in spirits: under lip and beneath white: throat with two oblong black streaks; under-side with two series of large, square, black spots, united by a rather broad, black, central streak: tail black beneath: anterior frontal small, triangular; hinder rhombic: vertebral moderate, ovate; occipital small, scale-like; loreal square: the fifth and sixth labial shields under the eye, the first or second hinder ones double.

- a.* In spirits. North Coast of New Holland, Port Essington. From Mr. Gilbert's collection.
- b.* In spirits. Australia, Port Essington. Presented by Sir John Richardson, M.D., R.N.

b. *Crown shielded; occipital shield moderate.*

* *Head distinct, depressed: frontal shields 4; anterior 2, very small, triangular.*

17. FERANIA.

Head subcordate, dilated behind; eyes large: anterior frontal two pairs, transverse; hinder upper labial divided: eye over the fourth labial: body compressed; scales smooth, lozenge-shaped, in 29 longitudinal rows: back keeled; belly narrow, very convex; tail conical.

Ferania, Gray, *Zool. Misc.* 67, 1842. Phytomorphus, Fitz. *S. R.* 25, 1843, no char. Homalopsis sp., Schlegel, *Phys. Serp.* 349. ANAT., Schlegel, *Phys. Serp.* 349.

1. The FERANIA. Ferania Sieboldii, Gray, *Zool. Misc.* 67. Homalopsis Sieboldii, Schlegel, *Phys. Serp.* 349, t. 13, f. 4, 5. Seba, ii. t. 46, f. 2. Phytomorphus Sieboldii, Fitz. *S. R.* 25.

Gray-brown, irregularly cross-banded, and a pale dorsal streak; crown with two diverging brown streaks, and a central triangular spot behind.

Inhabits Bengal. Mus. Leyden.

** *Head distinct, depressed: frontals 3; anterior triangular, transverse, small; rostral rounded.*

† *The fourth and fifth hinder upper labial shields small, with similar shields over them.*

18. HOMALOPSIS.

Head dilated behind, swollen on the sides; crown and face shielded; anterior frontal (sometimes divided into two) triangular; vertebral and superciliary moderate; occipitals large; loreal elongate (or two short): the labial shields behind the eye, sixth to ninth divided; anterior ones narrow, high: one anterior large and two posterior oculars: eyes moderate: body thick, fusiform: scales strongly keeled, longitudinally striated: tail elongate.

Homalopsis, Kuhl. *Isis*, 1826, 213. Boie, *Isis*, 1827, 521. Gray, *Zool. Misc.* 64, 1842. Fitz. *S. R.* 25. Homalopsis sp., Wagler, *Syst. Amph.* 169.

* *Eye surrounded with small scales ; loreal 1.*

1. The HOMALOPSIS. *Homalopsis buccata*, Schlegel, *Phys. Serp.* 337, t. 13, f. 1. *Russell, Ind. Serp.* ii. t. 33. Col. subalbidus, *Gmelin, Syst. Nat.* 1103, from *Seba*, ii. t. 23, f. 3; and *Merrem, Beytr.* t. 10, from *Seba, Thes.* ii. t. 12, f. 1, t. 13, f. 1. *Scheuchz. Phy. Sacra.* t. 660, f. 1. Col. buccatus, *Lin. Mus. Ad.* t. 19, f. 3. Col. viperinus, *Shaw, Zool.* iii. 465. Col. horridus, *Daud. Rept.* vii. 71 = *Seba*, ii. t. 12, f. 1. *Echidna semifasciata*, *Merrem, Tent.* 150. *Vipera buccata*, *Daud. Rept.* vi. 220, viii. 395. Col. monilis, *Linn. S. N.* i. 381. *Demicollier, Lacep. Quad. Ovip.* ii. 173, t. 8, f. 2. *Homalopsis monilis*, *Boie, Isis*, xx. 566. *Fitz. S. R.* 25.

Brown; lips and beneath pale whitish; back with narrow cross-bands; belly with a series of brown spots on each side; head pale brown, marked with a triangular spot on nose, a longitudinal streak on occiput, and a broad streak, including the eye, on each temple.

a. In spirits. Adult. Java. From the Leyden Museum.

b—d. In spirits. India. Bengal. Presented by General Hardwicke.

e. In spirits. Adult. India.

f. In spirits. Young. Batavia.

** *Eye on the top of the upper labial shields ; loreal 2.*

2. HARDWICKE'S HOMALOPSIS. *Homalopsis Hardwickii*, Gray, *Zool. Misc.* 65.

Olive, with black-edged, pale, narrow, often interrupted cross-bands: head pale, with an anterior triangular spot, and a broad streak up the side of the face enclosing the eyes: chin and beneath yellow: sides black-dotted: the sixteen or seventeen hinder scales of the lower series keeled, and marked with a brown ring near their tip on the front half of the disk, and the three scales on each side of the vent with a similar transverse ridge: tail elongate, slender.

a. In spirits. Adult. India. Presented by General Hardwicke.

19. PHYTOLOPIS.

Head moderate, rather depressed; crown shielded; lips swollen: frontals 3; anterior very small, rhombic; posterior small; loreal as large as posterior frontal; vertebral narrow, elongate; superciliary narrow; occipital plate large: temple covered with smooth

scales: rostral square, convex: anterior (5-5) labial occupying the front of the muzzle, very narrow, high; the hinder small, short, with two or three rows of scales above them: lower labial similar, but the hinder front one rather broader; the hinder one small, short, square: chin shields one pair, very large: body fusiform; scales not keeled, apparently smooth, but very minutely longitudinally striated: tail short, conical, tapering; subcaudal plate two-rowed.

1. The PHYTOLOPSIS. *Phytolopsis punctata*.

Greenish olive, with a yellow dot in the centre of many of the scales, forming together indistinct cross-bands: lips and lower part of the sides ($1\frac{1}{2}$ series of scales high) and under-side yellow.

a. In spirits. India. From Mr. Warwick's collection.

†† *The hinder labial large, like the others; scales keeled.*

20. URANOPS.

Head short, broad; crown shielded; occipital shields moderate: frontals 3, small; anterior triangular: nostrils sublateral, on upper edge of single shield: loreal 1, small: one high anterior and two square posterior oculars: labial moderate; the fourth larger, under the eye, and forming the edge of the orbit; the hinder larger, entire: eyes moderate, sublateral: scales large, truncated, very shortly keeled and deeply striated.

Uranops, Fitz. S. R. 25, 1843, not described. *Dum. & Bib. Erp. Gen.* 6, *ined.* *Homalopsis* sp., *Boie, Schlegel.*

1. The URANOPS. *Uranops angulatus*, Fitz. *Syst. Rept.* 25, 1843. *Helicops angulatus*, Wagler, *Syst. Amph.* 171. *Col. angulatus*, Linn. *Mus. Adolph.* i. 23, t. 15, f. 1. *Merrem, Beytr.* ii. 32, t. 6. *Homalopsis angulata*, Boie, *Isis*, xx. 551. *Schlegel, Phys. Serp.* 351, t. 13, f. 24, 25. *Natrix aspera*, Wagler, *Serp. Braz.* t. 13. *Col. Surinamensis*, Shaw, *Zool.* iii. 460, from *Scheuch. Ph. Sacr.* t. 630, B. t. 653, f. 3, t. 737, f. 3. *Seba*, ii. t. 24, f. 2, t. 59, f. 2.

Dark olive, with darker rhombic cross-bands; hinder part of upper lip, lower lip, lower part of sides and beneath white; scales large, very strongly and sharply keeled, truncated at the tip; head broad; eyes small; one large and two moderate posterior oculars;

occipital shield rather larger than the vertebral; fourth upper labial large under the eyes.

- a. In spirits. Adult. Tropical America.
- b. In spirits. Adult. Tropical America. From Parreyss' collection, Vienna.
"Uranops angulatus," *Parreyss*.
- c. In spirits. Young. Pale olive, with numerous broad lozenge-shaped cross-bands, the narrow part forming a rather irregular line across the belly. Tropical America. Presented by the Royal College of Surgeons.

21. TACHYNECTES.

Head moderate, depressed: frontals 3; anterior triangular, advanced between the nasals: eyes very small: scales ovate, truncated, strongly keeled: tail elongate.

Tachynectes, *Fitz. Syst. Rept.* 25, 1843, no character.

1. The TACHYNECTES. *Tachynectes Leopardina*, *Fitz. Syst. Rept.* 25, 1843. *Dimades Leopardina*, *Gray, Zool. Misc.* 65. *Homalopsis Leopardina*, *Schlegel, Phys. Serp.* 359, 65.

Red-brown, with five rows of darker spots placed in quincunx; paler beneath, with alternate darker spots: a pale streak from each eye, united behind, forming a collar.

Inhab. ———? Mus. Leyden.

22. TROPIDOPHIS.

Head rather depressed; crown shielded; occipital shields large: nostrils sublateral, on the upper edge of a single shield, with a groove beneath it: one high anterior and three posterior equal oculars: loreal single: labial shields moderate, uniform; fourth and fifth forming part of the orbit; hinder larger, undivided: eyes large, sublateral: body fusiform: scales keeled, ovate, and longitudinally striated: tail short, conical.

Like *Tropidonotus*, but anterior frontal and nasal shield single. *Tropidonotus* sp., *Schlegel, Phys. Serp.*

1. The CHITTEE. *Tropidophis Schistosus*. Chittee, *Russell, Ind. Serp.* ii. t. 4. *Coluber Schistosus*, *Daud. Rept.* vii. 132. *Merrem, Tent.* 103. *Tropidonotus Schistosus*, *Schlegel, Phys. Serp.* 319, n. 13. *Tropid. mæstus*, *Cantor, Zool. Soc.* 1838, 54?

Lead-coloured; back with obscure paleish lines; lip, lower series of scales on the sides of the body and beneath white; scales slightly keeled, marked with a pale central line, rather rounded at the end; head elongate; eyes large; occipital shields very large, elongated behind; one large anterior and three small posterior oculars; the fourth and fifth upper labials moderate, equal, and both under the eye; nostril on slope of face, but is on a single plate, with a groove on the outer side.

a—c. In fluid. Madras. Presented by J. C. Jerdon, Esq.

d. In fluid. Ceylon. Presented by R. Templeton, Esq.

e. In spirits. India. Presented by Dr. P. Russell.

"Coluber, n. s., ex India Orient. Dr. Russell," Shaw, MSS.

23. MYRON.

Head rather elongate; crown shielded; occipital shields large: nostrils sub-superior: frontals 3; anterior small, triangular, transverse, over top of rostral: anterior labial shields rather narrow; hinder broad, large: scales slightly keeled, minutely striated: eyes very small, over fourth labial: loreal small: two anterior and two or three posterior oculars nearly surrounding the eye: superciliary shields small.

Very like *Hypsirhina*, but scales keeled.

1. The AUSTRALIAN MYRON. *Myron Richardsonii*.

Back with alternate olive and many black cross-bands; sides white-spotted; beneath white; ventral shield dark-edged, with dusky, central, longitudinal streaks.

a. In spirits. Not good state. N.-West Australia. Presented by Sir John Richardson, M.D.

Uranops severe, *Dum. & Bib. Erp. Gen. t. 68*, no description. The figures appear to represent a species allied to *M. Richardsonii*. The back is represented uniform blackish; sides and beneath yellowish; the front part of the side with narrow oblique cross-bands; the belly and under-side of the tail with broader cross-bands; the loreal shields square, and there is an anterior and a posterior ocular; the occipital plates are rather large, and the temple shielded. The country is not mentioned.

2. The THREE-STREAKED MYRON. *Myron trivittatus*.

Olive, minutely black-dotted; back with five very narrow continuous white lines, and between them five interrupted black

streaks; belly white, with two broad black streaks, formed of two large semicircular black spots on the front edge of each ventral shield; subcaudal shield black, with a narrow white edge; loreal shield small; oculars small, two anterior and three posterior, lower very small.

a. In spirits. India? Presented by the Zoological Society.

24. HELICOPS.

Head ovate, indistinct, shielded: frontal anterior trigonal, between the nasal plates; superciliaries small; occipital elongate; upper labials entire; loreal distinct: two anterior and two posterior oculars: body fusiform; scales (19 rows) truncated, polished, smooth, of middle of hinder part of back and tail keeled: tail tapering. American.

Helicops sp., *Wagler, Syst. Amph.* 170, 1830. *Fitz. S. R.* 25, 1843. *Helicops*, *Gray, Zool. Misc.* 65, 1842. *Pseudoeryx* sp., *Fitz. N. Class. Rept.* 55, 1826. *Natrix* sp., *Wagler, Serp. Braz.* 27. *ANAT., Schlegel, Phys. Serp.* 353.

1. The *HELICOPS*. *Helicops carinacaudus*, *Wagler, Amph. t.* 7. *Fitz. S. R.* 25. Col. æneus, *Hemprich, Mus. Berlin.* *Pseudoeryx æneus*, *Fitz. N. Class. Rept.* 55, 1826. *Homalopsis carinacauda*, *Boie, Isis*, xx. 551. *Schlegel, Phys. Serp.* 350, t. 13, f. 18, 19. *Coluber carinacaudus*, *Neuwied, Beitr.* i. 302. *Abbild.* xi. t. 3.

Dark olive, paler beneath, darker on the edge of the plates: scales of the front and sides of body smooth, of the hinder part of back and tail strongly keeled.

a. In spirits. N. America. From the Leyden Museum.

††† *Hinder labial large, like others; scales smooth.*

25. HYPsirrhina.

Head small, distinct; crown shielded: frontals 3; anterior transverse, small; vertebral and superciliary rather small; occipital moderate; loreal square; upper labial large, entire; seventh large: eye over the fourth or fourth and fifth labial: body fusiform; scales smooth; tail conical.

Hypsirrhina, *Wagler, Syst. Amph.* 169, 1830. *Gray, Zool. Misc.* 65, 1842. *Fitz. S. R.* 25. *Hypsiscopus*, *Fitz. S. R.* 25,

1843. *Homalopsis* sp., *Boie, Isis*, 1827. *Schlegel, Phys. Serp. ANAT., Schlegel, Phys. Serp.* 348.

§ *Eyes over the suture of the fourth and fifth labial shields; lower half of sides pale. Scales in 19 rows. Tail short. Hypsi-*
scopus.

1. The LEAD-COLOURED HYPsirHINA. *Hypsirhina plumbea*, *Wagler, Syst. Amph.* 170. *Gray, Zool. Misc.* 66. *Homalopsis plumbea*, *Kuhl, Boie, Isis*, 1827, 560. *Schlegel, Phys. Serp.* 347, t. 13, f. 12, 13. *Hypsiocopus plumbeus*, *Fitz. S. R.* 25.

Tail very short, thick: lead-coloured, beneath white, black-marbled.

Var. *Bornensis*. Purplish brown, with a black dorsal streak; beneath whitish; shields darkish edged.

a. In spirits. Adult. Borneo. From the Leyden Museum.

2. HARDWICKE'S HYPsirHINA. *Hypsirhina Hardwickii*, *Gray, Illust. Ind. Zool. t. Zool. Misc.* 67. *Homal. plumbea, var., Schlegel*, 347.

Lead-coloured; back with three rows of small scattered black spots; the two last series of scales on each side white, lead-coloured at the base: scales in nineteen rows, minutely punctate, rather pale-edged: tail short, tapering: subcaudal plates whitish, blackish edged, forming a central streak: ventral shields whitish, lead-coloured at the base.

a. In spirits. Penang. Body $14\frac{1}{2}$, tail $2\frac{1}{2}$ inches. Presented by Gen. Hardwicke.

§§ *Eye over the fourth labial shield; lower part of side with a defined white streak. Hypsirhina.*

3. The ULAR AER. *Hypsirhina Aer*, *Wagler, Syst. Amph.* 170. *Fitz. S. R.* 25. *Homalopsis Aer*, *Boie, Isis*, 1827, 560. *Erp. Java, Aer*, t. 41, ined. *Schlegel, Phys. Serp.* 347, t. 13, f. 10, 11. *Coluber Oppell, Mus. Paris.* *Coluber Pythonissa*, *Daud. Rept.* vii. 107. *Hydrus Enhydrus*, *Schn. H. Amph.* i. 245. *Enhydrus cæruleus*, *Latr. Rept.* vi. 202, from *Russell*, i. t. 30. *Homalopsis olivaceus*, *Cantor, Proc. Zool. Soc.* 1838, 55. *Hypsirhina trilineata*, *Gray, Zool. Misc.* 66.

Lead-coloured ; dark lateral streak narrow, formed by the outer edge of the ventral shields ; beneath gray, minutely dotted : belly shields, with three longitudinal black streaks : head large, elongate ; tail elongate, blackish, with a series of white spots on each side beneath : subcaudal plates forming three narrow lines, black-edged : scales in 23 series : larger scales when nearly dry covered with small irregular blister-like convexities. Body 25, tail 6 inches.

a. In spirits. Adult. Borneo. From the Leyden Museum, as "Homolopsis Aer, Schlegel."

b. In spirits. Adult. India.

H. trilineata, Gray, *Zool. Misc.* 66.

c. In spirits. Half grown. India.

d. In spirits. India. From Colonel Cobbs's collection.

4. The TWO-LINED HYPsirrhina. *Hypsirrhina bilineata*, Gray, *Zool. Misc.* 66.

Lead-coloured ; back with an indistinct pale streak on each side ; beneath white ; sides grayish white, with a black lateral streak formed by the dark outer edge of the ventral shields : head small : tail elongate, lead-coloured, with two obscure pale streaks above, white beneath, with three black lines formed by the edge of the shields : scales in 21 rows. Body 18, tail 4½ inches.

a. In spirits. Adult. China. Presented by W. Lindsay, Esq.

b, c. In spirits. Young. Pale brown, with two pale streaks : head with two white streaks united over the nose ; lips, side and beneath white, with a narrow brown line on the edge of the abdominal shields : tail beneath white, with three narrow brown lines. India.

Hypsirrhina furcata, Gray, *Zool. Misc.* 66.

A very large, very thick, fusiform specimen, is in the museum of the Zoological Society, named "*Zenopeltis concolor*, No. 491."

5. The CHINESE HYPsirrhina. *Hypsirrhina Chinensis*, Gray, *Zool. Misc.* 66.

Lead-coloured, with a rather broad white streak along the lower part of each side, nearly two scales wide, dark lateral as wide as last series of scales : ventral shields lead-coloured, with a whitish hinder edge : scales in 23 series : tail short, compressed, whitish, clouded beneath.

a. In spirits. Adult. Body 13½, tail 3 inches. China. Presented by John R. Reeves, Esq.

6. BENNETT'S HYPsirrhina. *Hypsirrhina Bennettii*, Gray, *Zool. Misc.* 67.

Above blackish gray, with a broad and three narrow black streaks on the nape; back with three series of irregular blackish spots; white side streak and three scales towards dark streak narrow, margined; beneath white; front and side edge of abdominal and subcaudal shields black, varied with a spot in the centre of the front margin of the former: scales in 20 rows: tail compressed (injured).

- a. In spirits. China. With a large vesicular cavity formed by the skin on the right side of the neck, which appears to communicate with the lungs.
- b. In fluid. China. Presented by J. S. Bowerbank, Esq.

26. FARANCIA.

Head distinct, rather depressed: frontals 3; anterior triangular, transverse; posterior 2, broad, bent down on the sides: vertebral plates broad, six-sided; superciliary narrow in front; occipitals elongate; nostrils sublateral, small, in the middle of a four-sided plate, with a line to the lower edge; one oblong four-sided anterior, two posterior oculars, the lower smallest: eyes over the suture of the third and fourth labial; the upper labial entire; the hinder large; the seventh largest and highest: body fusiform; scales rhombic, in 19 or 21 series, smooth: ventral shields rather narrow, rounded: tail conical; subcaudal plates two-rowed.

Farancia, Gray, *Zool. Misc.* 68, 1842. *Hydrops* sp., *Wagler, Syst.*

1. The WAMPUM SNAKE. *Farancia fasciata*. *Hydrops Reinwardtii*, Gray, *Zool. Misc.* 67, 1842. *Homalopsis Reinwardtii*, *Schlegel, Phys. Serp.* 357. *Helicops abacurus*, *Holbrook, N. Amer. Erp.* iii. 111, t. 26, 1842. *Hydrops abacure*, *Dum. & Bib. Erp. Gen.* t. 65. *Wampum Snake*, *Catesby, Carol. t.* 58. *Vampun*, *Lacep. Quad. Ovip.* ii. 279, from *Cat.* *Coluber fasciatus*, *Shaw, Nat. Misc.* viii. t. 266. *Zool.* iii. 463. *Farancia Drummondi*, Gray, *Zool. Misc.* 68.

Reddish brown, shining; beneath yellowish; sides and beneath with large square yellow and brown spots; middle of belly brown; tail veins short; lips and throat dark-spotted.

- a—c. In spirits. Adult. New Orleans. From Mr. Sale's collection.

27. HYDROPS.

Head small, distinct, rather depressed; frontal plates 3, small; anterior triangular, transverse; vertebral and occipital moderate; superciliary small; loreal none; one large anterior and two posterior oculars: eye over fourth labial: upper labial plates all simple; hinder large, high, the seventh largest and highest: body subcylindrical; scales rhombic, broad, smooth, truncated, polished, in fifteen series; ventral shield broad, rounded.

Hydrops, *Wagler, Syst. Amph.* 170, 1830. *Gray, Zool. Misc.* 67. *Fitz. S. R.* 25. *Elaps* sp., *Wagler, Serp. Braz.* *Homalopsis* sp., *Schlegel, Phys. Serp.*

1. The HYDROPS. *Hydrops Martii, Wagler, Syst. Amph.* 170. *Gray, Zool. Misc.* 67. *Fitz. S. R.* 25. *Hydrops triangularis, Wagler, Syst. Amph.* 170. *Homalopsis Martii, Schlegel*, 356, t. 13, f. 19, 20. *Elaps Martii* and *E. triangularis, Wagler, Serp. Braz.* t. 2, f. 2, t. 2 a, f. 2, junior. ? *Coluber Nicandri, Merrem, Tent.* 97, from *Seba*, ii. t. 64, f. 2.

Scales in 15 series, truncated: blackish; body and tail with numerous red-brown rings.

Inhab. Brazil. Mus. Leyden.

28. HYGINA.

Body elongate, slender, subcylindrical; scales broad, rhombic, smooth: ventral shields rather narrow, regularly rounded: head small; crown rather depressed, shielded; one anterior large and two posterior smaller ocular shields, lower hinder partly under the eyes; hinder labial plates large, seventh largest; loreal shield none: eyes small, over the fourth labial: anterior frontals 3; front one transverse, triangular: tail elongate, tapering; subcaudal plates two-rowed. America.

Hygina, Gray, Zool. Misc. 67, 1842.

1. The HYGINA. *Hygina fasciata, Gray, Zool. Misc.* 67.

Blackish brown, with subalternating white cross-bands on the sides and beneath.

a, b. In spirits. Demerara. Presented by Lieut. Friend, R.N.

c—f. In spirits. Demerara.

29. DIMADES.

Head distinct; crown shielded; frontal shields 3; anterior small, transverse; hinder small; loreal none; vertical, superciliaries and occipital plates large; mental small: nostrils very close together: eyes rather large, anterior, over the suture of the third and fourth labial: one anterior and two posterior oculars: upper labial plates entire; the seventh short, with a large temporal plate above it: body thick; scales broad, smooth, in fifteen rows: tail conical.

Dimades, *Gray, Zool. Misc.* 65, 1842. *Helicops* sp., *Wagler, Syst. Amph.* 171. *Pseuderyx* sp., *Fitz. N. Class.* 55. *Pseuderyx*, *Fitz. S. R.* 1843. *Homalopsis* sp., *Schlegel, Phys. Serp.* 353. *ANAT., Schlegel, Phys. Serp.* 355.

1. The DIMADES. *Dimades plicatilis*, *Gray, Zool. Misc.* 65. *Col. plicatilis*, *Linn. Mus. Adolph.* i. 23, t. 6, f. 1. *Seba, Thes.* i. t. 57, f. 5, ii. t. 53, f. 3. *Merrem, Beytr.* ii. 28, t. 5. *Scheuch. Ph. Sacra.* t. 653, f. 2, t. 662, f. 10? *Homalopsis plicatilis*, *Boie, Isis*, xx. 551. *Schlegel, Phys. Serp.* 353, t. 13, f. 21, 23. *Helicops plicatilis*, *Wagler, Syst. Amph.* 171. *Bali, Lacep. Quad. Ovip.* ii. 176, t. 9, f. 1. *Cerastes plicatilis*, *Laur.* 81. *Elaps plicatilis*, *Schneid. H. Amph.* 294. *C. Natrix plicatilis*, *Merrem, Tent.* 99. *Pseuderyx Daudinii*, *Fitz. N. Class. Rept.* 55. *Pseuderyx plicatilis*, *Fitz. S. R.* 25.

Body subcylindrical; scales square, with rounded angle, broad, smooth; back red brown, beneath yellowish; sides with a broad streak spotted on the edges; crown brown-spotted, with a dark-edged yellow temporal streak.

N. America, New Orleans. *Mus. Strasburg.*

Coluber serratus, *Herrmann.* *Homalopsis plicatilis*, var., *Schlegel, Phys. Serp.* 355. *Dimades plicatilis*, var., *Gray, Zool. Misc.* 65.

Reddish yellow: back, a streak on each side, and two rows of large spots beneath, black or bluish.

*** *Frontals* 3; anterior elongate, erect, between nasals. Head moderate, depressed; rostral rounded. Scales smooth.

30. FORDONIA.

Head dilated behind, crown shielded; frontal plates 3; anterior elongate, between the nasal; vertebral and occipital small; superciliary very small; loreal none; upper labial plates very large, few;

hinder one entire, with a plate above it: eyes small, over the third labial: body compressed; abdominal plates narrow, rounded; tail short; subcaudal plates two-rowed; lower labial small.

Fordonia, Gray, *Zool. Misc.* 67, 1842. *Hydropsis*, Fitz. *S. R.* 25, 1843, *no char.* *Homalopsis* sp., *Schlegel, Phys. Serp.*

1. The *FORDONIA*. *Fordonia leucobalia*, Gray, *Zool. Misc.* 67. *Homalopsis leucobalia*, *Schlegel*, 345, t. 18, f. 8, 9. *Muller, Verh. Rept.* t. 8. *Hydropsis leucobalia*, *Fitz. S. R.* 25.

Scales in 25 series, smooth, rhombic: blue-black, polished, with many irregular series of angular white spots; belly white.

Inhab. Timor.

2. The *PLAIN FORDONIA*. *Fordonia unicolor*.

Olive-brown, polished, nearly uniform: scales minutely brown punctured; ventral shields with a rather paler hinder edge.

a. In spirits. Borneo? Presented by Capt. Sir Edward Belcher, K.C.B., R.N.

b. In spirits. Borneo. From Mr. Lowe's collection.

31. GERARDA.

Head moderate, rather depressed; rostral four-sided; frontal plates 3; anterior narrow, high between the nasals, dilated above; posterior moderate, close; superciliary small; vertebral moderate; occipital large, elongated behind; three anterior labial narrow, high; hinder broader; last largest, entire: eyes over the fourth plate; loreal plate, square: body subcylindrical: scales smooth, broad, rhombic; subcaudal plates rather broad, evenly rounded: tail conical; subcaudal plates two-rowed.

1. The *GERARD*. *Gerarda bicolor*.

Lead-coloured, white varied: lips (except rostral plate), chin, lateral streak $2\frac{1}{2}$ scales wide, white; under part pale: scales rhombic, in 16 or 17 series: one small anterior and two small posterior oculars.

a. In spirits. West Indies. From Mr. Luna's collection.

32. HIPISTES.

Head ovate, distinct, rather depressed; rostral shield six-sided, rounded; frontal plates 3; anterior narrow, erect, between the nasals; posterior, superciliary and other head shields small; loreal square: oculars 2, anterior and lower posterior rather large, verging

under the eye: eyes very small: labial rather broad; three hinder largest: body fusiform; scales elongate, lanceolate, flattened, smooth: ventral shields narrow, flat, angularly keeled on each side: tail short; apex acute, elongate, horny.

1. The BANNED HIPISTES. *Hipistes fasciatus*.

Pale slate-coloured; back with a series of truncated blackish spots; lower part of sides and beneath white; subcaudal plates dark at each end.

a. In spirits. Adult? West Indies. From Mr. Luna's collection.

**** Frontal shields 4; anterior 2, square, like posterior. Scales smooth.

33. ABASTOR.

Head indistinct, rather depressed; crown shielded: occipital large; vertebral elongate; frontal two pairs, four-sided, the anterior square smaller; rostral high, triangular, convex; nostrils sublateral, on a single shield; loreal none; oculars small, one anterior and two posterior: lips swollen; front labial small; hinder ones very large: eyes very small, over suture of third and fourth labial: temporal shields 3, in a single series: body subcylindrical; scales rhombic, smooth, polished: ventral shield rounded: tail short, tapering.

Known from *Coluber* by the nostril in a single shield.

Helicops sp., *Wagler, Syst. Holbrook*. *Homalopsis* sp., *Boie, Schlegel*.

1. The STRIPED WAMPUM. *Abastor erythrogrammus*. *Helicops erythrogrammus*, *Wagler, Syst. Amph.* 171. *Holbrook, N. Amer. Erp.* iii. 107, t. 25. *Coluber erythrogrammus*, *Daud. Rept.* vii. 93, t. 83, f. 2. *Merrem, Tent.* 117. *Homalopsis erythrogrammus*, *Boie, Isis*, 1827, 551. *Homalopsis plicatilis*, var., *Schlegel, Phys. Serp.* 355. *Trop. bipunctatus*, part, *Schlegel, Phys. Serp.* 320.

Bluish black, with three longitudinal red lines; abdomen with a row of bluish black spots on each side; tail short, one-eighth the total length.

a. In spirits. N. America. Presented by the Zoological Society.

34. RACLITIA.

Body cylindrical; scales smooth; ventral shields rather narrow: head small; crown shielded: frontal shields two pairs; front pair small, triangular; vertebral and superciliary small, broad; hinder labial shields entire; one loreal; one small anterior and one oblong posterior ocular: eyes small, over fourth shield: tail short, conical; subcaudal plate two-rowed: nostril in middle of shield, with a groove to the hinder edge: chin shields two pairs.

Raclitia, Gray, *Zool. Misc.* 67, 1842. "Ophoberophide," *Bibron*.

1. The INDIAN RACLITIA. *Raclitia Indica*, Gray, *Zool. Misc.* 67. "Ophoberophide," *Bibron*, *MSS. B. M.*

Purplish brown, beneath pale: crown with a series of short, irregular, white cross-bands on each side: occiput with one or two very narrow, white, indistinct cross-bands.

a, b. In spirits. Adult. India. Presented by General Hardwicke.

35. MIRALIA.

Head short, small; crown shielded: frontal two pairs; anterior small, triangular? loreal none? one anterior and two posterior oculars; occipital plates large; upper labial simple; temples shielded: body slender, compressed; scales smooth, in 19 series: tail short, thick, conical.

Miralia, Gray, *Zool. Misc.* 67, 1842. *Pelophis*, *Fitz. S. R.* 25, 1843, *no char.* *Brachyorrhos* sp., *Boie, Isis*, 1827. *Reuss. Mus. Senkenb.* *Homalopsis* sp., *Schlegel, Phys. Serp.* 344.

1. The MIRALIA. *Miralia alternans*, Gray, *Zool. Misc.* 68. *Brachyorrhos alternans*, *Reuss. Mus. Senk. t. 9, f. 3.* *Pelophis alternans*, *Fitz. S. R.* 25. *Homalopsis decussata*, *Schlegel, Phys. Serp.* 344, *t. 13, f. 14, 16.*

Reddish, with alternate white and red-brown rings: neck with a white collar: muzzle with a white spot.

Inhabits Java. *Mus. Leyden* and *France*. Perhaps an abnormal variety of *Raclitia Indica*.

***** *Head moderate, depressed: frontal one pair, small, lateral; rostral high, erect, between nasal and frontals, angular.*

36. *FICIMIA*.

Head moderate, rather depressed; crown shielded; rostral shield large, produced behind to the vertebral shield between the frontal ones; frontals one pair, small, far apart; lateral subtrigonal, occupying the place of a loreal shield; superciliary small, triangular; vertebral and occipital large; nasal triangular, over front labial; labial shields entire; nostril rather lateral, near anterior, with a distinct posterior groove; chin shields four pairs: eyes convex, small; pupil round: body subcylindrical; scales smooth, polished, rhombic, with the angle rounded; vertebral shield broad, rounded: tail tapering: subcaudal plates two-rowed.

In one of the specimens the rostral and first upper labial shield are united into one shield, on both sides.

1. The *FICIMIA*. *Ficimia olivacea*.

Blackish olive: lips, chin and beneath pale yellowish.

- a. In fluid. Nasal united with the first upper labial shields on each side. Mexico. From Mr. Hugo Finck's collection.
- b. In fluid. Nasal separate from the first upper labial shield. Mexico. From Mr. Hugo Finck's collection.

37. *PROSYMNA*.

Head indistinct; forehead rounded; rostral broad, rather low, keeled in front, rounder above: frontals 2, large, four-sided, transverse, band-like, similar, hinder broadest; vertebral large, trigonal; occipital band-like, oblique: nasal plate sublateral, rather large between upper edge of rostral and outer edge of front frontals: loreal moderate: one anterior and one or two posterior oculars: labial shields few, high and broad; first smaller: eyes large, over the suture between second and third labial shield: superciliary triangular.

Calamaria sp., *Reinhardt, K. Dansk. Ved. Sel. x. 1843, 238.*

1. The *PROSYMNA*. *Prosymna meleagris*. *Calamaria meleagris*, *Reinh. K. Dansk. Sels. x. 1843, 238, t. 1, f. 4, 6, head.*

Bluish black; each scale with a subapical pale spot; beneath whitish.

Inhab. Guinea. Mus. Copenhagen.

- D. *Head covered with small scales : tail with one row of shields below : abdominal shields broad, rounded, smooth : nostrils anterior, in a shield : scales granular, with longitudinal series of larger scales.*
Xenodermina.

38. XENODERMUS.

Head ovate, depressed, covered with small rather acute scales, with two pairs of small frontal plates just over the rostral in front ; rostral small, triangular, concave in the centre : nostrils large, rather anterior, in the middle of a large plate, with a slight slit to the hinder edge : labial scales rather larger than the dorsal, the lower ones with a concavity in the middle of each scale : upper rostral plate broad, triangular, erect, concave, surrounded by small scales : eyes convex, rather large ; pupil round : throat with small acute scales : body elongate, compressed, subpentangular ; back covered with very small semicircular scales, with a row of larger, ovate, keeled scales on each side, and two or three rows of similar larger keeled scales over the vertebral line ; the sides covered with moderate, ovate, keeled scales, rather larger beneath : the ventral shields transverse, rounded : tail elongate, rather compressed, subpentangular, tapering like the back above ; subcaudal shield one-rowed, rounded.

This genus appears intermediate between the *Hydridæ* and the *Boidæ*. It has the general external appearance of the former, combined with many of the characters of the latter family, but I cannot find any appearance of spurs.

Xenodermus, *Reinh. Oversigten Videns. Sels. Forsk.* 1836. *Wiegman. Arch.* 111, 1837, 136. *K. Dansk. V. Sels.* x. 1843, 253. *Gonionotus*, *Gray, in Stokes's Australia, Appendix*, 5, 1846 (not *White*).

1. The GONIONOTE. *Xenodermus Javanicus*, *Reinh. K. Dansk. V. Sels.* x. 1843, 253, t. 2, f. 1—8. *Gonionotus plumbeus*, *Gray, in Stokes's Australia, App.* 5, t. 4.

Bluish gray ; belly and beneath white. Length of body 9 inches, tail 4 inches = 13 inches.

a. In spirits. Java. Purchased in Rotterdam.

Fam. IV. Boidæ.

The ventral shields narrow (except in *Bolyeria*), transverse, band-like, often six-sided; the hinder limbs developed under the skin, formed of several bones and ending in an exserted horny spur, placed one on each side of the vent. Tail short, generally prehensile. The pupil oblong, erect, except in *Tortrix*.

They live in marshy places: fixing themselves by the tail to some aquatic tree, they allow themselves to float, and thus entrap the animals which come to drink: they kill their prey by pressure. The spurs were first noticed by Dr. P. Browne (*Hist. Jam.* 1789, 461). Schneider (*Hist. Amph.*) again observed them in 1792, and Dr. Russell figured them in 1795.

Constrictores and Anguiformes pars, *Oppell, Rept.* 1811. Colubrini pars, *Boie, Isis*, xx. 510, 1827. Boidæ, *Gray, Ann. Phil.* 1825, 209. *Zool. Misc.* 41, 1840. Boidæ and Erycidæ, *Bonap. Acad. Roy. Turin*, 1840. Ilysiodea and Pythonoidea, *Fitz. N. Class. Rept.* 26, 27, 1826. Serp. Macrostromata, Isodonta, and part Holodonta, *Muller, in Tiedem & Treviran. Zeitsch. fur Phys.* 1832, iv. 263. Serp. Phenopodes, *Meyer*. Ophidiens azemiophides, ou Serpents non Vénéneux Auriformes ou Pythoniens, *Dumeril & Bib. Erp. Gen.* vi. 337, 380. Colubrinia aplepia, *Rafin. Anal. Nat.* 77, 1815. Fam. Boas, *Schlegel, Phys. Serp.* Saurophidia pars, *fam. Cylindrophes, Gongylophes, Centrophes and Pythophes, Fitz. Syst. Rept.* 14, 1846.

Synopsis of the Genera.

I. Tail prehensile, strong. Head distinct: muzzle truncated.

A. Subcaudal plate two-rowed; intermaxillary or incisive teeth distinct; superciliary bone distinct. Old World. Pythonina.

1. MORELIA. Upper and lower labial shields deeply pitted; muzzle with symmetrical shields.
2. PYTHON. Upper and lower labial shields deeply pitted; muzzle and forehead with symmetrical shields; nostrils vertical.
3. HOETULIA. Upper and lower labial shields deeply pitted; muzzle and forehead with symmetrical shields; nostrils lateral.

4. **LIASIS.** Upper and lower labial shields pitted; muzzle and space between the eyes shielded.

5. **NARDOA.** Lower labial shields pitted; crown with eleven symmetrical shields.

B. *Subcaudal plates entire, one-rowed; intermaxillary or incisive teeth none; superorbital line none.*

a. Scales smooth; labial shields pitted.

6. **EPICRATES.** Forehead with symmetrical shields; crown scaly. America.

7. **XIPHOSOMA.** Forehead and crown scaly; muzzle with regular shields; labial plates short and all pitted. America.

8. **CORALLUS.** Forehead and crown scaly; muzzle with regular shields; labial shields short, hinder ones pitted. America.

9. **SANZINIA.** Forehead and crown scaly; muzzle with regular shields; labial shields elongate, prismatic. Madagascar.

10. **CLIFTIA.** Forehead and crown scaly; muzzle with regular shields; labial shields broad, low. Asia.

b. Scales smooth; labial shields smooth, not pitted.

11. **BOA.** Crown covered with scales; nostrils lateral, between two plates. America.

12. **PELOPHILUS.** Crown covered with irregular plates; nostrils lateral, between two scales. America.

13. **EUNECTES.** Crown covered with irregular shields; nostrils vertical, between three plates. America.

14. **CHILABOTHRUS.** Crown covered with regular shields; nostrils lateral, between three scales. Madagascar.

c. Scales keeled; labial shields not pitted; nostrils between two plates. America.

15. **UNGALIA.** Head covered with symmetrical shields.

d. *Scales keeled ; labial shields not pitted ; nostrils in a single plate.* Asia.

16. ENYGRUS. Head covered with small irregular shields ; nostrils in a single plate. Asiatic Islands.
17. CASAREA. Head scaly ; muzzle covered with symmetrical shields ; nostrils in a single plate ?
18. BOLYERIA. Head covered with symmetrical shields ; nostrils in a single plate.

II. *Tail very short, slightly or not prehensile. Head indistinct, short.*

a. *Head covered with scales ; pupil oblong ; scales convex ; subcaudal shield one-rowed ; intermaxillary teeth none ; supra-orbital bone none.* Erycina.

19. CUSORIA. Muzzle rounded ; ventral and subcaudal plates narrow ; scales ovate, of body and tail smooth.
20. GONGYLOPHIS. Muzzle wedge-shaped ; jaws equal ; head with small keeled scales ; scales of back keeled ; body fusiform.
21. ERYX. Muzzle wedge-shaped ; upper jaw largest ; head with small scales ; scales of back smooth, of hinder part of body keeled.
22. CLOTHONIA. Muzzle wedge-shaped ; upper jaw largest ; scales smooth.

b. *Head shielded ; pupil round.*

* *Nostrils in a single shield ; eyes surrounded by shields ; intermaxillary teeth none.* Cylindrophina.

23. CYLINDROPHIS.

** *Nostrils between two shields ; eyes surrounded by small scales.* Charinina.

24. CHARINA.

*** *Nostrils between two shields ; eyes in a single shield ; intermaxillary teeth distinct* Tortricina.

25. TORTRIX.

A. Tail strongly prehensile ; spurs large, exposed. Head elongate, distinct ; muzzle truncated. Eyes nocturnal ; pupil oblong, erect.

a. Subcaudal plates two-rowed ; intermaxillary or incisive teeth distinct ; super-orbital bone distinct. Old World. Pythonina.

Pythonina, Gray, *Zool. Misc.* 1840. Pythoniens, Holodontes, Pythonides, Dum. & Bib. *Erp. Gen.* vi. 381, 1846. Pythophes, Fitz. *Syst. Rept.* 24, 1843. Constrictores pars, Oppell, *Rept.* 1811. Python, Daud. *Rept.* v. 230, viii. 384. Cuvier, *R. A.*

† Crown of head with small scale-like plates.

1. MORELIA.

Head shields small, scale-like ; frontal plates distinct, three pairs ; vertical plate small ; rostral shield single, with a pit on each side ; three front upper and the hinder lower labial plates pitted : nostrils lateral in a single plate, with a groove beneath : eyes lateral ; pupil elliptical, erect : scales smooth ; subcaudal plates two-rowed. Australia.

Morelia, Gray, *Zool. Misc.* 43, 1842. Echidna sp., Merrem, *Tent. Dum. & Bib. Erp. Gen.* vi. 383. Python, Wagler, *Syst. Amph.* 168, 1830. Python sp., Cuvier, *R. A. Fitz. N. Class. R.* 54. *Syst. Rept.* 24. Schlegel, *Phys. Serp.*

* Vertical plate indistinct.

1. The DIAMOND SNAKE. *Morelia spilotes*. *Coluber spilotes*, Lacep. *Ann. Mus.* iv. 194 (1802). *Echidna spilotes*, Merrem, *Amph.* 150. *Python spilotes*, Gray, *King's Voy.* ii. Snake, Nos. 1 and 10, White, *Voy. N. S. Wales*, 259. Australian Snake, Shaw, *Zool.* iii. 505, and vignette on title-page. *Python punctatus*, Merrem, *Amph.* 90. Fitz. *N. Class.* 54. Boie, *Isis*, xx. 526. *Python Peronii*, Cuvier, *Mus. Paris*, 1827. Lesson, *Ann. Sci. Nat.* xiii. 391. Wagler, *Icon. Amph.* t. 1. Schlegel, *Phys. Serp.* 421, t. 15, f. 11, 12. Fitz. *Syst. Rept.* 24. *Serpens arabica*, Seba, ii. 108, t. 103, f. 1? 1734. *Vipera argus*, Klein. *Tent.* 21 (1755). *Coluber argus*, Linn. *Syst. Nat.* i. 389, 1758. Daud. *Rept.* vi. 312. *Natrix argus*,

Merrem, 90 and 126. *Morelia argus*, *Dum. & Bib. Erp. Gen.* 385. *Morelia punctata*, *Gray, Zool. Misc.* 43.

Bluish black, very irregularly yellow (white in spirits), spotted, a spot on the centre of each scale, forming a group of five or six together, or a kind of tied blotch; occiput with an angular band.

- a. Stuffed. Adult. Australia. From Mr. Turner's collection.
- b. Stuffed. Adult. Australia.
- c. Stuffed. Adult. Australia.
- d. Stuffed. Adult. Australia.
- e. Stuffed. Adult.

**** Vertical plate distinct.**

2. The CARPET SNAKE. *Morelia variegata*, *Gray, Zool. Misc.* 43, 54. *M. argus*, var. c, *Dum. & Bib. Erp. Gen.* vi. 386, 389.

Whitish (in spirits), with numerous irregular black-edged olive cross-bands, with irregular serrated and torn edges: head olive, varied with two or three white spots in the centre of the crown, and a broad short band behind each eye.

- a. In spirits. Half grown. Port Essington, N. Australia. From Mr. Gilbert's collection.
- b. In fluid. Adult. Port Essington. Presented by J. B. Jukes, Esq.

Var. 1. With a continued pale streak down the lower part of each side of the neck.

- c—e. In fluid. Nearly adult. Swan River. From Mr. Dring's collection.
- f. In fluid. Houtman's Abrolhos. From Mr. Gilbert's collection.
- g. In fluid. Swan River. Purchased.
- h. Stuffed. Adult. Boston Island, S. Australia. Presented by Hon. Capt. G. Grey. Called *Mood-lud-nar*.
- i. Stuffed. Adult. S. Australia. Presented by Hon. Capt. G. Grey.
- j. Skin. Half grown. Swan River. From Mr. Mather's collection.
- k. Stuffed. Half grown. Australia.
- l. In spirits. Very young. Pale brown, rather darker varied and much compressed. Port Essington. Presented by the Earl of Derby.

†† *Crown of head shielded to behind the eyes.*

2. PYTHON.

Head covered with scales; forehead and muzzle with symmetrical shields to behind the eyes; rostral and upper and lower labials pitted: nostrils perpendicular, vertical, between two unequal sized plates, the hinder sometimes divided by a groove into two: eyes lateral; pupil linear, erect: scales smooth; subcaudal plates two-rowed.

Python, *Gray, Ann. Phil.* 1825, 209. *Zool. Misc.* 44, 1840. Constrictor sp., *Wagler, Syst.* 168, 1830. Python, *β. Dum. & Bib. Erp. Gen.* vi. 417, not *Wagler*. Python sp., *Daud. Rept.* vi. 226, viii. 384, *Cuvier. Merrem. Fitz.* 1826. Constrictor and Astero-phus, *Fitz. Syst. Rept.* 24, 1843, *no char.*

They place their eggs in a group and cover them with their body: this circumstance was first noticed by Mr. Bennett, who gives a figure of the snake on its eggs as a vignette. M. Lamare Picquot communicated this fact to the Academy of Sciences, with some other remarks on the habits of serpents; but M. Dumeril, in his report on this paper, read on the 19th of March, 1832 (see *Ann. Sci. Nat.*, n. s., iv. 36), discredited his account; and though it was re-stated by the author, M. Dumeril concluded a letter with these words: "Ensuite qu'ils n'ont pas besoin et qu'ils leur serait inutile de couvrir leurs œufs." (*l. c.* 36, *note*). The Python in the Garden of Plants at Paris has proved the correctness of Mr. Bennett's and Lamare Picquot's observations.

* *Four front upper labial plates pitted; frontal plate simple.*
Constrictor, *Fitz.*

1. The ULAR SAWA. Python reticulatus, *Fitz. N. Class.* 54. *Gray, Zool. Misc.* 44. *Dum. & Bib. Erp. Gen.* vi. 426. Boa reticulata, *Schn. Amph.* ii. 261. *Daud. Rept.* v. 116. Python Schneiderii, *Merrem, Tent.* 89. *Schlegel, P. S.* ii. 415, t. 15, f. 5—7 (part). *Guerin, Icon.* t. 21, f. 1. Boa rhombeata, *Schneid. Amph.* ii. 266? B. amethystina, part, *Schneid. Amph.* ii. 259. *Daud. Rept.* v. 231. B. phrygia, *Shaw, Zool.* iii. 348, t. 97. *Russell, Ind. Serp.* Coluber Javanicus, *Shaw, Zool.* ii. 441. *Kuhl, Isis*, 1825, 473. C. Javensis, *Fleming, P. Z.* 291. B. constrictor, var., *Latr. Rept.* iii. 135. Python Iles de Sonde, *Cuv. R. A.* ii. 681. Ular Sawa, *Wurmb. Verh.* iii. 391. La Jaune et Bleue, *Lacep. Quad. Ovip.* ii.

251. L'oularsawa, *Bonnat. Ophiol.* 26. Constrictor *Schneiderii*, *Wagler, Syst. Amph.* 168. *Fitz. Syst. Rept.* 24. *Seba, Thes.* i. t. 62, f. 2; ii. t. 79, f. 1, t. 80, f. 1.

The smaller of the two nasal plates without any longitudinal groove; the frontal plate entire (or rarely divided into two), and not followed by other large symmetrical plates; a single supra-ocular on each side; rostral, with two front pairs of upper and six or seven hinder pairs of lower labial shields pitted; head with a narrow longitudinal brown stripe.

- a. In spirits. Head of half grown. India. Presented by General Hardwicke.
- b. In spirits. Young. Borneo. Presented by Capt. Sir Edward Belcher, K.C.B., R.N.
- c. In spirits. Young. Borneo. From Mr. Lowe's collection.
- d. In spirits. Half grown. India. Presented by General Hardwicke.
- e. Stuffed. Half grown. India.
- f. In spirits. Adult. India? Borneo. Presented by Capt. Sir Edward Belcher, K.C.B., R.N.
- g. In fluid. Adult. India. From Mr. Gardener's collection.
- h. In spirits. Half grown; bleached. India? Old collection.

"*Coluber molurus*, *Shaw, Brit. Mus.*

**** Two pairs of front upper and three hinder lower labial shields pitted; frontal plate double. *Asterophis*, *Fitz.***

2. The ROCK SNAKE. *Python molurus*, *Gray, Zool. Misc.* 44. *Coluber molurus*, *Linn. S. N.* ii. 225. *Seba*, i. t. 37, f. 1. *Shaw, Zool.* iii. 458, t. 116. *Daud. Rept.* vi. 239. *C. Boaformis*, *Shaw, Zool.* iii. 511. *Python de la Sonde*, *Lesson, Belanger, Voy. Rept.* 316. *Asterophis tigris*, *Fitz. Syst. Rept.* 24. *B. cinerea*, *Schn.* 270. *B. castanea*, *Schn.* 272. *B. albicans*, *Schn.* 274. *B. ordinata*, *Schn. Amph.* ii. 260. *Daud. Rept.* v. 252 = *Seba, Thes.* i. t. 37, f. 1. *B. orbiculata*, *Schn. Amph.* 276. *Python bivittatus*, *Schlegel, Phys. Serp.* ii. 403, t. 15, f. 1—4. *Abbild.* 55, t. 17, f. 11 (*Javanensis*), not *Kuhl.* *P. Poda, Boie.* *P. Javanicus*, *Kuhl. Fitz. N. Class.* 54. *P. Tigris*, *Daud. Rept.* v. 241, t. 64, f. 1. *Gray, Ann. Phil.* 1825, x. 209. *Fitz. N. Class.* 54. *Merrem*, 89. *P. Bora*, *Russell, Ind. Serp.* t. 39. *Daud. Rept.* v. 236. *C. Pedda Poda*, *Russell, Ind. Serp.* i. t. 22—24. Constrictor (*Pedda Poda*), *Wagler, Syst.* 168. *Le Molure*, *Daub. Lacep. Quad. Ovip.* ii. 218, t. 10, f. 1.

The front and hinder lower labial shields moderately wide, equal; the smallest of the two nasal plates with a longitudinal groove; the frontal plate divided into two longitudinally, and followed by other symmetrical plates; one supra-ocular on each side; rostral plates, with two front pair of upper and three hinder pair of lower labial shields pitted.

- a. In spirits. Adult; partly bleached. India. Old collection.
- b. In spirits. Adult. From Mr. Gardener's collection.
- c. Stuffed. Adult. India.
- d. In spirits. Adult; partly bleached. India. Presented by the Royal College of Surgeons.
- e. In spirits. Young. India. Presented by General Hardwicke?
- f. In fluid. Adult. India, Madras. Presented by J. C. Jerdon, Esq.
- g. In fluid. Adult. India. From Major Hogg's collection.
- h. In spirits. Adult; nearly bleached. India. Old collection.
- i, j. Stuffed. Adult. Singapore.

3. HORTULIA.

Head covered with irregular scales; front of forehead and muzzle shielded; frontal plates three pairs; rostral and upper and lower labials pitted: nostrils lateral, between two unequal plates: eyes lateral; pupil linear, erect: scales smooth; subcaudal plates two-rowed. Africa.

Hortulia and Python, *b*, Gray, *Zool. Misc.* 43, 1842. Heleionomus? Gray, *Zool. Misc.* 43, 1842. Python, *A*, Dum. & Bib. *Erp. Gen.* 400. Enygrus sp., Wagler, *Syst. Amph.* 166, 1830, not Dum. & Bib. Constrictor sp., Wagler, 168. Python sp., Daud., Cuvier, &c. Boa sp., Schneider, &c.

* Two pairs of front upper labials pitted; supra-ocular shields 2 or 3.

1. The NATAL ROCK SNAKE. Hortulia Natalensis, Gray, *Zool. Misc.* 44. Python Natalensis, A. Smith, *S. Afric. Quart. Jour.* 64. Ill. Z. S. Africa, t. 9. Dum. & Bib. *Erp. Gen.* vi. 409.

Two front pairs of upper labial shields pitted; the internasal larger than the front nasals; one pair of prefrontals; three supra-ocular shields on each side. Olive; back with irregular, unequal, black-edged, yellow cross bands and spots: head with an arrow-

shaped spot; side of face and beneath yellow, with a dark streak from the back of the eye.

- a. Stuffed. Adult. Port Natal, South Africa. From Dr. Andrew Smith's collection.
- b. Stuffed. Adult. S. Africa. From Mr. Warwick's collection.
- c. Stuffed. Adult; bad state. S. Africa?
Heleionomus variegatus, Gray, *Zool. Misc.* 43.
- d. Stuffed. Young. South Africa, Natal. From Dr. Krauss' collection.

2. The GUINEA ROCK SNAKE. *Hortulia* Sebae. *Coluber* Sebae, *Gmelin*, *S. N.* iii. 1118 (from *Seba*, ii. t. 19, f. 1, t. 27, f. 1, t. 99, f. 2). *Daud. Rept.* vi. 238. *Dum. & Bib. Erp. Gen.* vi. 400, t. 61. *Col. speciosus*, *Bonap.* *E. M.* 17 (from *Seba*, ii. t. 99, f. 2). *Boa hieroglyphica*, *Schneid. Amph.* ii. 266. *Merrem, Tent.* 90. *B. constrictor*, var. f, *Latr. Rept.* iii. 135. *Daud. Rept.* v. 197. *Constrictor bivittatus*, *Wagler, Syst.* 1, 68. *Python bivittatus*, *Kuhl. Beitr.* 94. *P. bivittatus*, var., *Schlegel, Phys. Serp.* 408. *Serpent*, *Bosman. Guinea*, 395. *Serpent Geant*, *Adanson, Seneg.* 71, 152.

The ten pairs of front lower labial shields very narrow, narrower than the hinder ones; internasal plates shorter than the front nasal; two small prefrontals (sometimes united) on each side, a frontal divided in two longitudinally; three pairs of parietals, less and less developed from the front backwards; two supra-oculars on each side; rostral with two pits; two front pairs of upper labials pitted.

- a. In spirits. Young. W. Africa, Ashantee. From the Leyden Museum.
" *Python bivittatus*, var., *Schlegel.*"
- b. In spirits. Young. W. Africa, Gold coast. From Mr. Rich's collection.
- c. In fluid. Adult. W. Africa, Gambia. Presented by the Earl of Derby.

**** Four pairs of front upper labials pitted; supra-ocular plate single; lower labial shields broad, four.**

3. The ROYAL ROCK SNAKE, *Hortulia regia*. *Boa regia*, *Shaw, Zool.* iii. 347, t. 96 (from *Seba*, i. t. 62, f. 1, and t. 102.) *Merrem*, 88. *Fitz. N. S. Rept.* 54. *Python regius*, *Dum. & Bib. Erp. Gen.* vi. 413. *Boa constrictor*, var. d, *Latr. Rept.* iii. 134. *Daud. Rept.* v. 196. *Enygrus (regius)*, *Wagler, Syst.* 167. *Cen-*

chris regia, Gray, *Griffith*, A. K. ix. *Python Bellii*, Gray, *Zool. Misc.* 44, young.

Internasal plates nearly as long as the frontonasal; four prefrontals on each side; a frontal divided longitudinally into two, and followed by small not symmetrical plates; one large supra-orbital plate on each side; rostral with two pits; four front upper pairs of labials one-pitted; front eight pairs of lower labial shields broad, high, rest shallow. Black; middle of the back with a series of oblong longitudinal white spots, largest in front: sides with a series of very large white spots, with one or two oblong black spots on their upper part: head black, a streak over the nostril and the top of the eyes, another from the lower edge of the eye; the lips, chin and beneath white.

a. In spirits. Young. Western Africa, Gambia. From Mr. Rendal's collection.

Python Bellii, Gray, *Zool. Misc.* 44.

b. In spirits. Half grown. W. Africa. Presented by Sir James Mc'Grigor.

c, d. In fluid. Adult. W. Africa, Gambia. Presented by the Earl of Derby.

e. In fluid. Adult. W. Africa, Gambia. Presented by the Earl of Derby.

f. In fluid. Young. W. Africa, Gambia. From Mr. Rendal's collection.

g. Stuffed. Young. W. Africa.

Python Houtheynii, Daud. *Rept.* v. 254, viii. 384, only rest of the description of Houttyns. *Tjerri tjerri slang*, Schneid. *Amph.* ii. 219.

4. LIASIS.

Head scaly, with symmetrical shields on the muzzle to between the eyes: vertical plate single: nostrils lateral, in a single shield, with a groove behind: eyes lateral; pupil oblong, erect: upper and lower labial shields pitted: scales smooth: subcaudal plates two-rowed.

Liasis, Gray, *Zool. Misc.* 44, 1842. *Dum. & Bib. Erp. Gen.* vi. 431. *Python* sp., Daud. *Rept.* v. 26.

* *Rostral plate with two pits; side of face with small scales.*
Simalia.

1. The LIASIS. *Liasis amethystinus*, Gray, *Zool. Misc.* 44. *Dum. & Bib. Erp. Gen.* vi. 432. *Boa amethystina*, Schneid. *Amph.*

ii. 254. *Denk. Akad. Münch.* vii. t. 7. *Python amethystinus*, Daud. *Rept.* v. 230. Merrem, 89. *Schlegel, Phys. Serp.* 178, 419, t. 15, f. 8, 10. *Constrictor amethystinus*, Boie, *Isis*, xx. 516.

Frenal plates 8-8 or 12-12, in a double series; preocular shields 2 or 3; post-ocular 3 or 4; rostral with two deep pits; back of the upper, the four front pairs of the upper, and the six or seven pairs which precede the four or five last of the lower labial shields, pitted.

Inhab. New Ireland. Mus. Paris.

2. MACKLOT'S LIASIS. *Liasis Macklotii*, Dum. & Bib. *Erp. Gen.* vi. 440. *Python amethystinus*, var., *Schlegel, Phys. Serp.* 420.

Frenal plates 1-1; one preocular and two post-oculars; rostral shield with two indistinct pits; two front pairs of the upper, and the four or five hinder pairs preceding the three or four last lower labial shields, pitted.

Inhab. Timor and Samao. Mus. Leyden.

**** Rostral not pitted; side of face with small scales. Liasis.**

3. CHILDREN'S LIASIS. *Liasis Childrenii*, Gray, *Zool. Misc.* 44. Dum. & Bib. *Erp. Gen.* vi. 438.

Frenal plates two on each side, with two rows of granular scales beneath them; one preocular and four post-ocular shields; rostral without any pits; the front pair of upper labials with a slight pit on the outer upper edge, and the four pairs which precede the three last lower labials pitted. Purplish brown: back with a central series of oblong, transverse, dark spots: sides with two series of roundish black spots, beneath white: upper lip with a dark streak to the angle of the mouth.

a. In spirits. Adult. N. W. Australia.

b. In spirits. Adult. N. W. Australia, Port Essington. From Mr. Dring's collection.

***** Rostral plate not pitted; side of face without any small scales. Lisalia.**

4. THE LISALIA. *Liasis olivacea*, Gray, *Zool. Misc.* 45, 54. Dum. & Bib. *Erp. Gen.* vi. 442.

Frenal plates 2-2; one preocular and three post-ocular shields; rostral not pitted; the first pair of upper labials with a small pit on

the outer upper edge; the four or five hinder pair of the lower preceding the three last pair pitted. Pale olive-green (in spirits): upper lip and beneath pale yellowish: occiput scaly, with one pair of larger shields.

- a. In spirits. Adult. N. Australia, Port Essington. From Mr. Gilbert's collection.
- b. Stuffed. N. Australia, Port Essington. From Mr. Gilbert's collection.
- c. In spirits. Adult. Sir Charles Hardy's Island. Presented by J. B. Jukes, Esq.

5. NARDOA.

Head scaly; muzzle regularly shielded to between the eyes, without any anterior frontals: nostrils lateral, in a single plate: eyes lateral; pupil elliptical, erect: upper labial shield flat; hinder lower labial pitted: scales smooth: subcaudal plates two-rowed.

Teeth and shields of a *Python*, not a *Tortrix* as believed by M. Schlegel.

Nardoa, Gray, Zool. Misc. 45, 1842. Dum. & Bib. Erp. Gen. vi. 444. Tortrix sp., Schlegel, Phys. Serp. Bothrochilus, Fitz. Syst. Rept. 24, 1843, no char.

* Hinder frontal very large, front one small; rostral much depressed.

- 1. The NARDOA. Nardoa Schlegelii, Gray, Zool. Misc. 44. Dum. & Bib. Erp. Gen. v. 447. Tortrix Boa, Schlegel, Phys. Serp. ii. 22. Abbild. 45, t. 13. Bothrochilus Boa, Fitz. S. R. 24.

Black and white ringed; three penultimate pairs of lower labials pitted; loreal scales small; anterior ocular single, posterior two.

Inhab. New Ireland. Mus. Paris, one specimen.

** Frontals moderate; middle largest.

- 2. GILBERT'S NARDOA. Nardoa Gilbertii, Gray, Zool. Misc. 45, 54. Dum. & Bib. Erp. Gen. vi. 446.

Pale (in spirits): back with five longitudinal series of dark olive spots, which are more or less confluent, forming cross bands, closer together on the hinder part of the body, appearing olive with irregular whitish lines: head with a black streak above the lip through the eye to the side of the neck: head-shields brown, with a

black spot: loreal shield square: anterior ocular large; posterior oculars 3, small: inter-loreal scales 2, small. The front of the body has a narrow longitudinal streak on each side, between the spots.

a. In spirits. N. Australia, Port Essington. From Mr. Gilbert's collection.

B. *Subcaudal plates entire; intermaxillary or incisive teeth none; supra-orbital bone none; scales smooth or keeled; head-scales subsymmetrical.*

Boa and Corallus, *Daud.* Constrictores pars, *Oppell.* Pythoniens, Aprotrodontes, Boæides, *Dum. & Bib. Erp. Gen.* vi. 450, 474. Centrophes, *Hempr. Fitz. Syst. Rept.* 24, 1843.

a. *Scales smooth; labial shields pitted.*

6. EPICRATES.

Head covered with scales, and with shields on the front half; superciliary shield distinct: one large anterior and four small posterior oculars: labial shields flat, short, slightly pitted on each side; loreal shield large, over labial: nostrils lateral, between three plates and internasal and two nasals: eyes lateral; pupil elliptical, erect: body fusiform: scales flat, smooth: subcaudal plates one-rowed: spur of the males stronger than of the females.

Epicrates, *Wagler, Syst. Amph.* 168, 1830. *Gray, Zool. Misc.* 44, 1842. *Dum. & Bib. Erp. Gen.* vi. 552. *Fitz.* Cenchris sp., *Linn. S. N. ed.* 7, 35. *Gronov. Mus. Ichth.* ii. 68. *Gray, Ann. Phil.* 1825, x. 209. *Griffith, A. K.*, not *Wagler, Amph.* 175, 1830. Eunectes sp. and Enygrus sp., *Wagler, Syst. Amph.* 167, 166, 1830. Boa sp., *Fitz.*, 1826.

* *Orbit with a complete circle of scales.*

1. The PALE-HEADED EPICRATES. *Epicrates angulifer*, *Bibron, Sagra. H. N. Cuba*, t. 25. *Dum. & Bib. Erp. Gen.* vi. 561. *C. angulata*, *Bibron in Mus. Zool.* Boa sp., *Gundlach, Wiegman. Arch. N.* i. 361.

Head without dark streaks: the frontonasal plate with a transverse row of four anterior frontal plates: orbit with a complete circle of scales: scales of the middle of the back as small as those of the sides.

a, b. In spirits. Adult. Hayti (R. Twining, Esq.) Presented by the Zoological Society.

**** Eyes immediately over the labial shield ; orbital circle of scales incomplete.**

† Face flattened ; head-shield rather large.

2. The ABOMA. *Epicrates Cenchria*, Gray, Griffith, A. K. ix. Wagler, Syst. 168. Gray, Zool. Misc. 42. *Boa Cenchria*, Linn. Mus. Adolph. ii. 42. S. N. i. 274. Schlegel, P. S. ii. 385, t. 14, f. 3—5. *Neuw. Abbild. t. Daud. Rept. v. 132, t. 62, f. 2. Merrem, Ann. Wett. ii. 51, t. 9. Seba, Thes. ii. t. 28, f. 2, t. 54, f. 3, young. B. annulifer, Daud. Rept. v. 202, t. 63, f. 3. t. 88, f. 1, t. 98, t. 56, f. 1, young, t. 62, f. 1. B. Cenchris, Gmelin, S. N. iii. 1083. Dum. & Bib. Erp. Gen. vi. 555. B. constrictor, var., Latr. Rept. iii. 134. B. maculata, Guild. MSS. Brit. Mus. Coluber dubius, Gmelin, S. N. 1086, from Seba, ii. t. 98, f. 1. C. bitix, Bonnat, E. M. 22. *Boa lateristriga*, Boie, Isis, xx. 515, 1827. Erp. Java, t. 26, jun. B. ternatea, Latr. Rept. iii. 152? *Eunectes (lateristriga)*, Wagler, Syst. 167. E. aboma, Cuv. R. A. ii. 67. *Cenchris murina*, Gray, Ann. Phil. 1825, x. 209. B. flavescens, &c., Bodd. N. Act. C. Leop. vii. 18, n. 7. "B. ocellata, Oppell, Mus. Paris. Enygrus (ocellatus), Wagler, Syst. Amph. 167." Gray, Griffith, A. K. ix. 97.*

Head with five dark streaks on the top and sides : back with large narrow rings : sides with two series of black spots : scales of the vertebral line broader than those of the sides : the frontonasal plate with a cross row of three anterior frontal shields : orbit with an incomplete ring of scales.

a. In spirits. Adult ; bleached. Old collection.

Boa Cenchria, Shaw, Cat.

b. In spirits. Young. W. Indies. Presented by Mrs. W. P. Mauger.

c—e. In spirits. Young. Trinidad. From Rev. L. Guilding's collection.

Boa maculata, Guilding, MSS.

f. In spirits. Young. Loreal shield short, high ; dorsal ring with a central spot. Chagres. From H.M.S. Chanticleer.

g. In fluid. Adult. British Guiana. Presented by Sir Robert Schomburgk.

h. In fluid. Adult. Para. Presented by R. Graham, Esq.

Var. 1. Brown ; back with a series of large round pale spots ; sides brown, with two irregular rather interrupted white streaks.

i. In spirits. Young. Cayenne. Presented by H. Cadogan Rothery, Esq.

j. Skin, stuffed. Adult. Brazil. Presented by R. Graham, Esq.

† *Head convex and rather compressed in front ; head-shield small.*

3. The BROWN ABOMA. *Epicrates maurus.*

Uniform brown: lips and beneath yellow: the ninth upper labial shield (the one next to the two under the eye) twice as broad as the others; anterior ocular shield high, forming part of the forehead; front lower labial shield very narrow: orbit with an incomplete ring of scales.

a. In spirits. Adult. Venezuela. From Mr. Dyson's collection.

7. XIPHOSOMA.

Head large, covered with scales: nostrils lateral, between two plates of two internasals, and two rows of other symmetrical plates behind them on the ends of the muzzle: rostral nine-sided, inequilateral: eyes lateral; pupil elliptical, erect; orbit with a complete circle of scales: all the lip-shields concave above, with a deep pit on the hinder edge of the upper lip and on most of those of the lower: body short, thick, compressed: scales flat, smooth: tail rather short: subcaudal plates one-rowed.

Xiphosoma, Gray, *Zool. Misc.* 1842. *Fitz. N. Syst.* 54, 1826. *Syst. Rept.* 24, 1843. *Xiphosoma*, a, *Wagler, Syst.* 167. *Xiphosoma* sp., *Dum. & Bib. Erp. Gen.* vi. 536. *Fitz. N. Class.* 54, 1826.

1. The BOJOBI. *Xiphosoma caninum*, *Fitz. Rept.* 54, 1826. *Wagler, Syst.* 167. Gray, *Zool. Misc.* 42. *Dum. & Bib. Erp. Gen.* vi. 540. X. *Araramboya*, *Wagler, Spix. Braz.* 45, t. 16. *Boa canina*, *Linn. Mus. Ad.* 39, t. 3. *Shaw, Nat. Hist. Zool.* iii. t. 96. *Schlegel, P. S.* 388, t. 14, f. 8, 9. *Guerin, Icon.* t. 19, f. 2. B. *Hypnale*, *Linn. S. N.* i. 373, a. *Seba, Thes.* ii. t. 34, f. 1, 2. *Lacep. Quad. Ovip.* ii. t. 16, f. 2. B. *exigua*, *Laur. Syn.* 89. B. *aurantiaca*, *Laur. Syn.* 89. *Seba*, ii. t. 81, f. 1. B. *thalassina*, *Laur. Seba*, ii. t. 96, f. 2. B. *viridis* and B. *flavescens*, *Bodd. Nov. Act. Leop.* vii. 17. *Scheuch. P. S.* t. 628, f. E. *Bojobi*, *Term. Holl. Equin.* 35. *Lacep. Quad. Ovip.* ii. 378, t. 17, f. 1.

Green: rostral plate nine-sided, inequilateral; internasal plates two, with two rows of other symmetrical plates behind them: eyes surrounded by a circle of scales.

a. In spirits. Adult. Brazils. Old collection.

Boa canina, *Shaw*, in *B. M.*

b. In spirits. Half grown. Brazils.

8. CORALLUS.

Head moderate, covered with scales, with two internasal shields and one series of smaller plates behind them on the end of the muzzle: rostral plate triangular, not pitted; front upper and hinder lower labial shields pitted: nostrils lateral, between two plates: loreal shields 2 or 3: eyes lateral; pupil elliptical, erect; orbit with a complete circle of scales: the hinder upper and lower lip-shield pitted; upper shields two-rowed, the front one slightly pitted: body slender, elongate, compressed: scales flat, smooth; of the back rather broad, rhombic; of sides narrower: tail elongate, slender: subcaudal plates one-rowed, brown and variegated.

Corallus, *Daud. Rept.* v. 259, viii. 385. Gray, *Zool. Misc.* 44, 1842. Caramus, *Rafin. Anal. Nat.* 77, 1815. Xiphosoma, b, *Wagler, Syst.* 167. Xiphosoma sp., *Dum. & Bib. Erp. Gen.* vi. 544. *Fitz. N. Syst.* 54, 1826. Boa sp., *Schneider.*

1. The CENCOATL. Corallus hortulanus, Gray, *Zool. Misc.* 42. Coluber hortulanus, *Linn. Mus. Adolph.* 37. Corallus obtusirostris, *Daud. Rept.* v. 259, t. 64, f. 3, t. 59, f. 5, 6; viii. 385. Boa hortulana, *Linn. S. N.* 374. *Lacep. Quad. Ovip.* ii. t. 17, f. 2. *Schlegel, P. S.* 392, t. 14, f. 10, 11. B. elegans, *Daud. Rept.* v. 123, t. 36, f. 1, t. 61, f. 32, 33. B. Merremi, *Schn. Syst.* ii. 259: *Merrem, Beitr.* ii. t. 2. *Tent.* 88. B. Enhydria, *Linn. S. N.* 375. B. modesta, *Reuss. Mus. Senck.* i. 129. Xiphosoma hortulanum, *Dum. & Bib. Erp. Gen.* vi. 545. Vipera bitis, *Laur.* 102. *Daud. R.* vi. 165 = *Seba*, ii. t. 16, f. 1. B. obtusiceps, *Bechst. Lacep.* v. 46, t. 2, f. 2. V. Maderensis, *Laur.* 102. *Daud.* vi. 157 = *Seba*, i. t. 54, f. 2. V. cærulescens, *Laur.* 101. V. Echidna cærulescens, *Merrem, Tent.* 153. Col. glaucus, *Gmelin, S. N.* i. 1092. Xiphosoma (Merremi), *Wagler, Syst.* 167. X. hortulana, *Fitz. N. S.* 54, 1826. La Broderie, *Lacep. Q. O.* ii. 381. La Parterre, *Bonnat.* Xiphosoma dorsale, *Wagler, Serp. Braz.* 43, t. 15. X. ornatum, *Wagler, Braz.* 40, t. 14, f. 2, young. *Seba, Thes.* t. 50, f. 1, t. 74 and t. 84, f. 1. *Scheuch. P. S.* t. 661, f. 9.

White (in spirits), red or black varied.

Var. 1. Loreal shields 3-3, last smallest: occiput lined.

- a. In spirits. Half grown. Red-spotted: superciliary shields 3 or 4, rather larger than those on crown; upper labials 10-10. Demerara. Presented by Dr. Hancock.

b. In fluid. Adult. Pale brown varied: three or four superciliary scales larger than the others; upper labials 11-11. Trop. America, British Guiana. Presented by Sir Robert Schomburgk.

c. In fluid. Adult. Venezuela. From Mr. Dyson's collection.

Var. 2. Loreal shields 3-3: occiput with two round dark spots: upper labial plates 10-10.

d. In spirits. Spot and red scales over the eyes very small, numerous, like those on crown. America, West Indies. Presented by Edward Cooke, Esq.

Corallus Cookii, Gray, *Zool. Misc.* 42.

e. In spirits of turpentine. Spot red. West Indies. Presented by W. P. Mauger, Esq.

Var. 3. Loreal shields 4-4, second small; upper labial shields 12-12.

h. In spirits. Adult. W. Indies, Berbice. Presented by Lady Essex.

Corallus maculatus, Gray, *Zool. Misc.* 42.

i. In spirits. Very young. W. Indies. From the Rev. Lansdown Guilding's collection.

Boa dubia, Guilding, MSS.

j. In fluid. Adult; bleached. Head in bad state. Grenada. Presented by W. S. Dallas, Esq.

Var. 4. *Melanea*. Black and white varied.

f. In fluid. Half grown. Spotted like the other of variety 2, but bluish black where others are red. W. Indies. From Mr. Argent's collection.

g. In spirits. Adult. Bluish black, slightly netted with narrow white lines. St. Vincent's. Presented by the Zoological Society.

9. SANZINIA.

Head short, covered with scales, with two internasal and some other symmetrical plates on the end of the muzzle: rostral seven-sided, inequilateral: labial shields very thick, triangular, prismatic on each lip: eyes lateral; pupil elliptical, erect; orbit with an incomplete series of scales below: nostrils lateral, between two unequal

plates : body short, fusiform : scales smooth, flat : subcaudal shields one-rowed.

Xiphosoma sp., *Dum. & Bib. Erp. Gen.* vi. 549, 1846.

1. The SANZIN. *Sanzinia Madagascariensis*. *Xiphosoma Madagascariensis*, *Dum. & Bib. Erp. Gen.* vi. 549.

Rostral plates seven-sided, inequilateral : yellowish above, reddish beneath, with angular white spots.

Inhab. Madagascar. Mus. Paris.

10. CLIFTIA.

Head covered with scales ; muzzle shielded, with two inter-nasal, two frontonasal, a prefrontal and two superciliary shields : labial shields broad, lower hinder largest, flat, front upper pitted ? loreal shields elongate, with a series of small scales between them and the labial shields : rostral shield flat, not pitted : nostrils lateral, between two shields : eyes lateral ; pupil elliptical, erect ? circle of scales round the eyes incomplete below, over the larger seventh labial shield : one large anterior and four small posterior oculars : body slender : scales ovate, rather thick, smooth, in many longitudinal series ; of the upper part of the tail many grooved : tail rather short, conical : subcaudal plates one-rowed.

This genus may be the same as the *Casarea*, but the scales in the dry specimens are not keeled, and the front upper labial shields appear to be pitted, and the tail is short.

1. The CLIFTIA. *Cliftia fusca*.

Pale brown, with some obscure darker spots.

a. Stuffed. India. From Mr. Cross's collection.

b. *Scales smooth ; labial shields smooth, not pitted.*

11. BOA.

Head entirely covered with scales, rather larger in front : labial shields flat, not pitted, short, narrow : nostrils lateral, between two plates : eyes lateral, surrounded with small scales ; pupil elliptical, erect : body fusiform : scales flat, smooth : subcaudal plates one-rowed.

Boa, *Gray, Ann. Phil.* 1825, 209. *Wagler, Syst.* 167. *Cenchris* sp., *Linn. S. N. ed. 7. Gronov. Mus. Ichthyol.* 69, 1754. *Constrictor* sp., *Laur. Syn. Rept.* 107, 1768. *Boa* sp., *Linn. Fitz.* 1826. *Boarius*, *Rafin. Anal. Nat.* 77, 1815.

* *Scaly circle of the orbit separated from the upper labial plates by one or two series of scales.*

1. The BOIGUACU. *Boa constrictor*, Linn. *Mus. Adolph.* i. t. 17, f. 3. *Schlegel, Phys. Serp.* ii. 373, t. 14, f. 6, 7. *Gray, Ann. Phil.* 1825, 209. *Zool. Misc.* 41. *Wagler, Syst.* 168. *Dum. & Bib. Erp. Gen.* vi. 507. *B. orophryas*, Linn. *S. N. ed.* x. 215 = *Scheuch. P. S. t.* 746, f. 1. *B. constrictrix*, Schn. *H. A.* ii. 247. *Seba*, i. t. 53, f. 1; ii. t. 78, f. 5, t. 99, f. 1, t. 101. *Constrictor formosissimus*, C. rex *Serpentium* and C. *auspex*, *Laur. Syn.* 107, 108. *Le Devin, Daub. Lacep. Q. O.* ii. t. 16.

Tail red at the end: rostral plate feebly nicked at the base and rather narrower than the lip: chin scales triangular, equilateral, rectilinear; scales of the upper part of the muzzle between the nasal plates, 30; the circle round the eye composed of thirty scales, and separated from the upper labial by two series of scales; one of the phrenal scales near the orbit rather larger than the others, as large as the globe of the eye. Tropical America.

a. In spirits. Half grown; bleached. Tropical America. Old collection.

Boa constrictor, *Shaw, Cat. B. M.*

b. In fluid. Adult. Para. Presented by John P. George Smith, Esq.

c. In fluid. Adult. Tropical America. Purchased of E. Cross.

d, e. In spirits. Young. Tobago. Presented by W. I. Alfred Ludlam, Esq.

f. In spirits. Young; bleached. Old collection.

g. Stuffed. Young. S. America.

h. Stuffed. Half grown. S. America.

i. Skin. Adult. Brazil. From Dr. Gardener's collection.

Called *Brown Peachili*.

j. In spirits. Head of adult. S. America.

** *The scaly circle of the orbit close on the edge of the upper labial plates.*

† *One of the hinder phrenals rather larger than the rest; muzzle obliquely truncated.*

2. The LAMANDA. *Boa diviniloqua*, *Dum. & Bib. Erp. Gen.* vi. 515. *B. orophrias*, Linn. *Syst. Nat. ed.* x. 215? *B. ophrias*, Linn. *Syst. Nat. ed.* xii. i. 374? *Constrictor diviniloquus*, *Laur. Syn.* 108, from *Seba*, ii. t. 100, f. 1. *B. constrictor*, var. B, *Latr.*

Rept. iii. 133. *Daud. Rept.* v. 195. ? *B. Divinatrix*, *Lacep. Q. O.* ii. 338, t. 16, f. 1.

Muzzle obliquely truncated; rostral feebly nicked at the base.
Inhab. St. Lucia. Gardens Zool. Soc.

†† *One of the hinder phrenals rather larger than the rest; muzzle truncated.*

3. The EMPEROR BOA. *Boa imperator*, *Daud. Rept.* v. 150. *Dum. & Bib. Erp. Gen.* vi. 519. *B. constrictor*, *β. Merrem, Tent.* 86.

The rostral plate rather narrower and slightly nicked below; the chin shield moderately high, triangular, equal sided, with the two larger sides concave; twenty scales above the muzzle between the nasal shields: orbit completely surrounded by sixteen or seventeen scales; one of the phrenal scales near the orbit rather larger than the rest, but never equal to the size of the globe of the eyes: a brown stripe on each side of the neck.

a. In spirits. Young. Mexico? Presented by Edward Cooke, Esq.

b. Skin. Young. Honduras. From Mr. Dyson's collection.

††† *One of the hinder phrenals much larger than the rest.*

4. The CHEVALIER BOA. *Boa Eques* (*Boa Chevalier*), *Eydoux and Souleyet, Voy. Bonite, Zool.* t. 4, 1842. *Dum. & Bib. Erp. Gen.* vi. 521.

The rostral plates one-third narrower below than at the tip and strongly nicked; the chin shield triangular, with the longer sides concave; twenty or more scales on the muzzle between the nasal; orbit surrounded by twelve or thirteen scales; one of the phrenal scales near the orbit much larger than the others, and as large as the globe of the eye.

Inhab. Peru. Mus. Paris.

12. PELOPHILUS.

Head covered with scales behind and shielded in front: nostrils lateral, between two plates: eyes lateral; pupil elliptical, erect: lip shields flat, without pits: body thick, compressed: scales flat, smooth: subcaudal shields one-rowed.

Pelophilus, *Dum. & Bib. Erp. Gen.* vi. 523, 1844.

1. The PELOPHILE. *Pelophilus Madagascariensis*, *Dum. & Bib. Erp. Gen.* 524.

Large black spots round the lower jaw; a square black spot on the upper lip below the eye; a black streak from the back of the eye.

a. Stuffed. Madagascar. From M. Parzudaki's collection.

b. In spirits. Head of adult. Rostral scales black; spot under the eye oblong on one, and two smaller ones on the other side. New Guinea? Presented by Capt. Sir Edward Belcher, K.C.B., R.N.

13. EUNECTES.

Crown covered with scales, and with shields on the front half: labial shields smooth, without pits; front one high and narrow; the hinder lower, two-rowed: nostrils at the tip of the muzzle, each between three plates, one internasal and two nasals: eyes subvertical, with small shields above and behind, and a large ocular in front; superciliary plate distinct; pupil oblong, perpendicular: body fusiform: scales flat, smooth: subcaudal plates one-rowed.

Eunectes, *Wagler, Syst.* 167, 1830. *Gray, Zool. Misc.* 41, 1842. *Dum. & Bib. Erp. Gen.* vi. 527. *Boa, Laur. Rept.* 88. *Boa* **, *Merrem, Tent.* 86. *Cenchris* sp., *Gronov. Mus. Ichth.* 70, 1754. *Boa* sp., *Linn.*

1. The ANACONDO. *Eunectes murinus*, *Wagler, Syst.* 167. *Gray, Zool. Misc.* 41. *Dum. & Bib. Erp. Gen.* vi. 529. *Boa murina*, *Linn. S. N.* i. 374 = *Seba*, ii. t. 23, f. 1, t. 29, f. 1. *Scheuch. P. S.* t. 606, f. 1. *Schlegel, Phys. Serp.* ii. 380, t. 14, f. 1, 2. *Abbild.* 55, t. 17, f. 8—10. *Boa Scytale*, *Linn. S. N.* i. 374. *Eunectes Scytale*, *Fitz. S. R.* 24. *B. glauca* and *B. albida*, *Bodd. N. Act. Cæs. Leop.* vii. 17, *B. B. Anacondo*, *Daud. Rept.* i. 161, t. 63, f. 2, very young. *B. aquatica*, *Neuwied, Abbild.* t. *B. gigas*, *Latr. Rept.* iii. 136. *Cenchris*, No. 44, *Gronov. Mus.* 70. *Le Rativore*, *Lacep. Q. O.* ii. 383. *Serpent Aboma*, *Stedm. Voy.* i. 225, t. 14. *Boa Aboma*, *Daud. Rept.* v. 132, t. 62, f. 2. *Amore*, *Marg. H. Braz.* 242.

Brown, with two series of large black rounded spots, and with a series of yellow-eyed black rings on each side.

a, b. Young, from eggs, 2 feet long.

c. In spirits. Young. Brazil.

d. In spirits. Half grown. Brazil.

- e, f.* In spirits. Very young. Brazil. Presented by Sir James Mc'Grigor.
- g.* In spirits. Half grown. Brazil.
- h.* In spirits. Adult. Tropical America.
- i.* Stuffed. Adult. Tropical America. From Mr. Rich's collection.
- j.* Skeleton of *i.*
- k.* Stuffed. Adult. Tropical America.

14. CHILABOTHRUS, *Dum. & Bib.*

Crown scaly, with the two front thirds covered with shields: two internasal, two frontonasal, two prefrontal, two supra-ocular, one frontal, four parietal, one phrenal, two preocular and three or four post-ocular shields: lip shields flat, not pitted: nostrils between three plates, one internasal and two nasal: eyes lateral; pupil elliptical, erect: scales of the body smooth: subcaudal shield one-rowed. Head shield like *Liasis*.

Chilabothrus, *Dum. & Bib. Erp. Gen.* vi. 562, 1844. *Cenchris*, *P. Browne, Jam.* ii. 461, 1754, not *Daudin*.

Dr. Browne first noticed the spurs of this family: he says the negroes eat this species, and use the fat as a resolute.

1. The YELLOW SNAKE. *Chilabothrus inornatus*, *Dum. & Bib. Erp. Gen.* vi. 563. *Boa inornata*, *Reinh. Beskriv. Slang.* 1843, 21, t. 1, f. 21, 23. Yellow Snake, *Cenchris* 1, *P. Browne, Hist. Jam.* 461.

Head and front part of the body olive; temple with a narrow black streak: back with small, scattered, black, oblique cross lines; hinder part of the body black, with olive spots.

- a.* In spirits. Skin. West Indies, Jamaica. From Mr. Gosse's collection.
- b.* In fluid; bad state. Jamaica. Presented by Robt. Heward, Esq.
- c, d.* Stuffed. Adult, Jamaica. Presented by J. Gould, Esq.
- e.* In spirits. Very young; perhaps bleached, much compressed. Pale brown, with only two or three very small black spots and no eye-streak. Jamaica. From Mr. Gosse's collection.

- c. *Scales keeled ; labial shields not pitted : nostrils between two plates. America.*

15. UNGALIA.

Head covered with symmetrical plates: labial shields not pitted: nostrils lateral, between two plates: eyes lateral; pupil elliptical, erect: scales convex, appearing keeled: subcaudal plates one-rowed.

Ungalia, Gray, *Zool. Misc.* 43, 1842. *Tropidophis*, Dum. & Bib. *Erp. Gen.* vi. 488, 1846. *Leionotus*, Bibron, in *Sagra Hist. Cuba*, 1840 (not described). *Erycopsis* (subgenus of *Ailurophis*), Fitz. *Syst. Rept.* 27, 1843 (no character).

1. The BLACK-TAILED UNGALIA. *Ungalia melanura*, Gray, *Zool. Misc.* 46. *Boa melanura*, Mus. Paris. Schlegel, *Phys. Serp.* 399. *Abbild.* 98, t. 26. *Tropidophis melanura*, Bibron, *Sagra, Cuba*, t. 23. *Erp. Gen.* vi. 491. *Boa pardalis*, Gundlach, *Wieg. Arch.* 1840, 359. *Ailurophis Erycopsis melanura*, Fitz. *Syst. Rept.* 27.

Olive-violet or reddish brown, with angular black spots and scattered small white spots: tail, the hinder third all black: a series of small scales over the labial shields.

Inhab. Cuba. Collection of J. P. George Smith, Esq.

2. The PARDALINE UNGALIA. *Ungalia maculata*. *Leionotus maculatus*, Bibron, *Sagra, Cuba Rept.* 212. t. 24, 1840. *Tropidophis maculatus*, Dum. & Bib. *Erp. Gen.* vi. 494. *Boa pardalis*, part, Gundlach, *Wieg. Arch.* 1840, 359.

Gray-brown, fulvous or reddish, with many large round or oval black spots: tail spotted like the body: no small scales over the labial shields.

a. In spirits. Cuba. Presented by P. B. Webb, Esq.

b. In spirits. Young. Spanish Town, Jamaica.

c. In spirits. Very young. Back with four, belly with two, rows of spots on each side. Bluefields, Jamaica. From Mr. Gosse's collection.

"Pardaline Snake, Gosse."

- d. *Scales keeled ; labial plates not pitted : nostrils in a single plate.*
Asiatic.

16. ENYGRUS.

Head covered with many sided, subimbricate scales, becoming larger behind ; internasal plates rather large : labial shields not pitted : nostrils lateral, in a single plate : eyes lateral ; pupil elliptical, erect : scales keeled : subcaudal plates one-rowed : spurs very small, scarcely apparent in the female.

Enygrus, *Wagler, Syst. Amph.* 167, 1830 (description and part of *Synonyma*). *Dum. & Bib. Erp. Gen.* vi. 479. *Candoia*, *Gray, Zool. Misc.* 43, 1842. *Cenchris* sp., *Gray, Griffith, A. K.* ix. 97. *Xiphosoma* sp., *Fitz. N. Class.* 54. *Tropidoboa*, *Homb. & Jacq. Voy. au Pole Sud.* 1842. *Boa* sp., *Schneider.* *Vipera* sp., *Daud.*

* *Upper edge of the phrenal region angular.*

1. The CANDOIA. *Enygrus carinatus*, *Dum. & Bib. Erp. Gen.* vi. 479. *Boa carinata*, *Schn. Amph.* ii. 261, 1801. *Merrem, Ann. Wetter.* ii. 60, t. 9, 1810. *Daud. Rept.* v. 222. *Schlegel, Phys. Serp.* ii. 397, t. 14, f. 12, 13. *Abbild.* 55, t. 17, f. 6, 7. *Seba*, ii. t. 28, f. 63, 4. *Candoia carinata*, *Gray, Zool. Misc.* 43. 1. *Vipera Bitis*, *Daud. Rept.* vi. 157. *Xiphosoma carinata*, *Fitz. N. Class.* 54. *Cenchris ocellata*, *Gray, Griffith, A. K.* ix. 97. *Boa ocellata*, *Oppell, MSS. Mus. Paris.* *Enygrus (ocellatus)*, *Wagler, Syst.* 167 ? *E. regius*, *Fitz. Syst.* 24.

Scales of the forehead as small as those of the crown ; upper edge of the phrenal regions angular : tail with two or three large white spots (no black streak on each side nor along the middle of the belly) ; ventral shields 167 to 180.

a, b. In spirits. "New Guinea" (Amboina ?) From the Leyden Museum.

"*Boa carinata*, *Schlegel.*"

** *Upper edge of phrenal region rounded.*

2. BIBRON'S ENYGRUS. *Enygrus Bibroni*, *Dum. & Bib. Erp. Gen.* vi. 483. *Tropidoboa de Bibron*, *Homb. & Jacq. Voy. au Pole Sud. Ophid.* t. 1.

Scales of the forehead larger than those of the crown ; upper lip of the phrenal region rounded ; a black streak on each side of

the belly, and sometimes a third central one; ventral shields 212 or 220.

Inhab. Isle Viti. Mus. Paris.

17. CASAREA.

Head depressed behind, covered with scales; muzzle shielded, with two internasal, two frontonasal, and prefrontal and supra-ocular plates: nostrils lateral (in the middle of a plate?): eyes lateral; pupil elliptical, vertical: labial shields not pitted: body slender, much compressed: scales keeled: tail elongate, slender: subcaudal plates one-rowed: spur inconspicuous.

Casarea, *Gray, Zool. Misc.* 43, 1842 (not Casarea, as written by *Dum. & Bibron*, vi. 485). *Leptoboa*, *Dum. & Bib. Erp. Gen.* vi. 485. *Centrophis*, *Hempr. MSS. Fitz. Syst. Rept.* 24, 1843, no character.

1. The CASAREA. *Casarea Dussumieri*, *Gray, Zool. Misc.* 43, 1842. *Boa Dussumieri*, *Mus. Paris. Schlegel, Phys. Serp.* 396. *Abbild.* 55, t. 17, f. 1—5. *Leptoboa Dussumieri*, *Dum. & Bib. Erp. Gen.* vi. 486. *Centrophis Dussumieri*, *Fitz. Syst. Rept.* 24. Reddish gray, beneath yellow; tail black-spotted.

Inhab. Isle Ronde, near Mauritius, *Dussumier*. Mus. Paris; one specimen.

18. BOLYERIA, Gray.

Head covered with symmetrical plates, viz., one pair internasal, one pair frontonasal bent down on the sides, one pair frontal, one pair supra-ocular, one pair parietal, two pre- and four post-oculars: nostrils lateral, in the middle of a plate: eyes anterior, lateral; pupil elliptical, erect: labial plates not pitted: body subcylindrical: scales hexagonal, three-keeled: tail short, broad.

Allied to *Eryx*; habit of *Colubridæ*.

Bolyeria, *Gray, Zool. Misc.* 43, 1842. *Platygaster*, *Dum. & Bib. Erp. Gen.* vi. 496. *Euroleptes*, *Fitz. Syst. Rept.* 24, 1843, no character (not *Uroleptis*, as cited by *Dum. & Bibron*. *Eryx* sp., *Peron. Boie, Isis*, 1827, 513. *Tortrix* sp., *Schlegel*.

1. The BOLYERIA. *Bolyeria multicarinata*. *Eryx multicarinatus*, *Peron, MSS. Boie, Isis*, xx. 513. *Platygaster multicarinatus*, *Dum. & Bib. Erp. Gen.* vi. 497. *Euroleptes pseudoeryx*, *Fitz. Syst. Rept.* 24, 1843. *Tortrix pseudoeryx*, *Schlegel, Phys.*

Serp. ii. 19. *Abbild.* 112, *t.* 34. *Bolyeria pseudoeryx*, Gray, *Zool. Misc.* 46, 1842.

Scales of the back six-sided, three-keeled.

New Holland, Port Jackson, *Peron.* Mus. Paris.

II. *Tail very short, not (or only slightly) prehensile. Head very small, indistinct.*

a. *The head covered with scales; intermaxillary teeth and supra-orbital bone wanting; scales convex: subcaudal plates one-rowed: anal spurs distinct, small. Erycina.*

Eryxina, Gray, *Zool. Misc.* 43, 1842. *Pythoniens*, *Aproterodontes*, *Erycides*, *Dum. & Bib. Erp. Gen.* vi. 451. *Pythopoides* pars, *Fitz. N. Class. Rept.* 1826. *Constrictores* pars, *Oppell, Rept.* 1811. *Isodonta* pars, *Muller.* *Colubriini* pars, *Boie, Isis*, xx. 510. *Colubriens* pars, *Latreille, Fam. Nat.* *Gongylophes*, *Fitz. Syst. Rept.* 24, 1843.

* *Muzzle rounded in front.*

19. CUSORIA.

Head elongate, covered with rather large, imbricate, nearly symmetrical, smooth scales: rostral rather large, broad, low, triangular, flattened beneath: internasal shields 2, rather large, transverse; superciliary shield none: eyes surrounded by a ring of square scales: lores with several scales in two series: nostrils lateral, between three plates, the internasal and two nasals: eyes lateral; pupil ———?; body fusiform; tail rather tapering: scales of the head and body ovate, rather convex, smooth; lower series rather larger: ventral and subcaudal plates narrow.

1. The CUSORIA. *Cusoria elegans.*

Pale brown in spirits: back with two series of large more or less confluent brown spots; sides with two series of small brown spots; belly brown-marbled.

a. In spirits. Adult. Afghanistan. Presented by the Hon. East India Company.

**** Muzzle shelving, rather produced beneath.**

20. GONGYLOPHIS.

Head covered with small keeled scales: muzzle covered with shields; frontal one pair, moderate: nose truncated or cut square: rostral wedge-shaped: jaws equally long: throat-fold none: nostrils lateral, triangular, linear, between three plates, one internasal and two nasals: eyes lateral; pupil elliptical, erect: body fusiform: tail conical, with a conical scale at the tip: scales of the back and tail keeled, convex.

Gongylophis, *Wagler, Syst. Amph.* 192, 1830. *Gray, Zool. Misc.* 43, 1842. *Boa* sp., *Schneider, Schlegel.* *Eryx* sp., *Guerin, Iconog. Dum. & Bib.* *Tortrix* sp., *Schlegel.* *Scytale* sp., *Guerin, Iconog.*

1. The PADAIN COOTOO. *Gongylophis conica, Gray, Zool. Misc.* 45. *Boa conica, Schn. Amph.* ii. 268. *Denkschr. Munich,* vii. 119, t. 6, f. 2. *Schlegel, Phys. Serp.* ii. 399. *Eryx conicus, Dum. & Bib. Erp. Gen.* vi. 470. *B. ornata, Daud. Rept.* v. 210. *B. viperina, Shaw, Zool.* iii. 355, t. 100. *Padain Cootoo, Russell, Ind. Serp.* i. 5, t. 4. *Vipera orientalis, Seba, Thes.* ii. 82, t. 78, f. 1, 78, f. 4. *Daud. Rept.* vi. 50? *Eryx Bengalensis, Guerin, Icon. Rept.* t. 20, f. 1. *Scytale coronata, Guerin, Icon. Rept.* t. 20, f. 2. *Tortrix Eryx, var, Schlegel, Phys. Serp.* 17.

Pale brown; back with dark confluent, lozenge-shaped cross-bands; sides brown-varied.

a. In spirits. Young. India. Presented by Dr. P. Russell.

Padain Cootoo, Russell, Ind. Serp. t. 4.

b, c. In spirits. Young. India. Purchased.

d. In spirits. Adult. India.

e. Stuffed. Adult. India.

f, g. In spirits. Half grown. India, Madras. Presented by J. E. Boileau, Esq.

h. In spirits. Half grown. India. Presented by the Royal College of Surgeons.

i. In spirits. Very young. India.

j. In spirits. Adult. Scales of the back convex, rather smooth. India, Madras. Presented by J. C. Jerdon Esq.

k. Skin of adult, in spirits. Madras. Presented by Walter Elliott, Esq.

21. ERYX.

Head covered with small, keeled scales, rather shielded in front; nose shelving; upper jaw rather longest: nostrils lateral, triangular, linear, between three plates, one internasal and two nasals: eyes lateral; pupil erect, oblong: body fusiform: tail conical: scales of the back smooth; of the hinder part of the body and tail keeled.

Eryx, Gray, *Ann. Phil.* 1825, 210. *Zool. Misc.* 1842. Wagler, *Syst. Amph.* Erix, Cuvier, R. A. Eryx sp., Daud. *Dum. & Bib. Erp. Gen.* vi. 454. Pseudoboa sp., Schneider.

* Gular groove distinct; frontal 2 pairs.

1. The ERYX. Eryx Jaculus, Daud. Gray, *Zool. Misc.* 45. *Dum. & Bib. Erp. Gen.* vi. 463. Tortrix Eryx, Schlegel, *Phys. Serp.* ii. 14, t. 1, f. 11—13. Anguis Jaculus and A. colubrina, Hasselq. *Linn. S. N.* ii. 390. Anguis cerastes, Hasselq. *Voy. App. n.* 67 (distorted). *Linn. S. N.* ii. 392. Eryx delta, Geoff. *Rept. Egypt*, t. 6, f. 2. E. familiaris, Eversm. *Zool. Spec.* 176. Boa turcica, Olivier, *Voy.* i. 329, t. 16, f. 2. Daud. *Rept.* vii. 267, t. 85, f. 2, 3. t. 61, f. 34, 35. Eryx turcicus, Gray, *Ann. Phil.* x. 210. Fitz. *N. Syst. Rept.* 54. Scytale, Aldrov. *Serp.* 233, fig. Amphisbæna Grevini, Ald. *Serp.* 239, fig. Boa tatarica, Lich. *Verz.* 104.

Tail subconic, very blunt at the end, and covered with a large hemispherical scale; gular groove distinct; scales moderate, hex-angular, rather longer than broad; vertebral plate small, distinct; one series of scales under the eye.

a. In spirits. Adult. Egypt. Presented by Sir J. Gardener Wilkinson.

b. In spirits. Adult. Corfu. Presented by Dr. Benga.

c. In spirits. Half grown. Shores of Mediterranean. Presented by Dr. J. Miller, R.N.

d, e. In fluid. Half grown. Xanthus. Presented by Sir Charles Fellowes.

f. In spirits. Naxos, Greece. Presented by Capt. J. Ince, R.N.

g. In spirits. Young. From Dr. Heckel's collection.

Eryx Turcicus, Heckel.

h—k. In spirits. Adult and young. Xanthus. Presented by Sir Charles Fellowes.

** No gular groove; frontals 1 pair.

2. The SHIELDED ERYX. Eryx Thebaicus, Reuss. *Mus. Senk.* i. 134. *Dum. & Bib. Erp. Gen.* vi. 468. Eryx scutata, Gray, *Zool.*

Misc. 45. *Eryx* de la Thebaide, *Geoff. Rept. Egypt*, i. 140, t. 6, f. 1 (not accurate).

Internasals one pair; scales behind the nasal plate small, granular, like those of the crown; throat without any fold; tail conical, tip covered with a conical scale; vertebral shield none; two series of scales under the eyes.

a. In spirits. Adult. N. Africa, Egypt. Presented by Sir J. G. Wilkinson.

22. CLOTHONIA.

Head covered with small, symmetrical, smooth scales: muzzle shielded, with one pair internasals and one pair frontonasals: nose wedge-shaped: rostral wedge-shaped, very broad, subtriangular: upper jaw rather the longest: throat with a distinct fold: body sub-cylindrical: scales small; of the middle of the back convex; of the sides flat, smooth; two lower series the largest: tail triangular, scarcely tapering, and tip covered with a large three-sided scale.

Clothonia, *Daud. Rept.* vii. 285. *Gray, Ann. Phil.* x. 1825, 210. *Zool. Misc.* 43, 1842. *Boa* sp., *Russell, Ind. Serp.* *Eryx* sp., *Merrem, Tent.* 85. *Boie. Dum. & Bib.*

1. The CLOTHONIA. *Clothonia Johnii*, *Gray. Zool. Misc.* 45. *Boa Johnii*, *Russell, Ind. Serp.* ii. t. 26, adult; 17, young. *Eryx Johnii*, *Dum. & Bib. Erp. Gen.* vi. 458. *Boa anguiformis*, *Schn. Amph.* ii. 269. *Clothonia anguiformis*, *Daud. Rept.* vii. 283. *Gray, Ann. Phil.* x. 210. *Eryx anguiformis*, *Merrem, Tent.* 85. *Tortrix Eryx*, adult, *Schlegel, Phys. Serp.* ii. 18, 11. *Amphisbæna*, *Penny Encyc. fig.*

Reddish brown; one series of scales between eyes and labial shields: young bright coloured (*Russell, Ind. Serp.* t. 17).

a. In spirits. Adult. India. Purchased.

b. In spirits. Adult. Tail injured and rounded. India. Presented by General Hardwicke.

c. In spirits. Skin of adult. Madras. Presented by J. C. Jerdon, Esq.

d. In spirits. Very young (discoloured dark brown). Presented by the Royal College of Surgeons.

e. In fluid. Half grown. Madras. Presented by J. C. Jerdon, Esq.

- b. *Head shielded, small, cylindrical, like body; muzzle depressed, rounded: no hinder frontal bone; no intermaxillary teeth: nostrils in the middle of a shield: eyes between shields, without any plate on each side; pupil round: tail very short, cylindrical, not prehensile: anal spur very small, hidden.* *Cylindrophina.*

Anguiformes pars, *Oppell, Rept.* 1811. *Cylindrynes* pars, *Latreille, Fam. Nat.* 100. *Ilysioides* pars, *Fitz. N. Class. Rept.* 26. *Imbricatæ* pars, *Boie, Isis*, xx. 310, 1827. *Tortricina* pars, *Muller.* *Cylindrophes* pars, *Fitz. Syst. Rept.* 24, 1843. *Tortricides* pars, *Dum. & Bib. Erp. Gen.* vi. 581.

23. CYLINDROPHIS.

Tail compressed: nasal plates large; frontal plates moderate: eyes surrounded by the labial, superciliary and temporal plates, and sometimes by a small posterior ocular plate. *India.*

Cylindrophis, *Wagler, Syst. Amph.* *Ilysia*, *Hemprich. Licht. Doubl.* 104. *Fitz. N. Class. Rept.* 54. *Anilius*, *Oken.* *Scytale* sp., *Merrem.*

* *Tail triangular, truncated.*

1. The BLACK-BACKED PAMBOO. *Cylindrophis melanota*, *Wagler, Syst. Amph.* 195, 1830. *Icon. t.* 27. *Dum. & Bib. Erp. Gen.* vi. 592. *Tortrix melanota*, *Boie, MSS. Isis*, 1827. *Reinw. Mus. Leyden.* *Tortrix rufa*, var. *Celebensis*, *Schlegel, Phys. Serp.* iii. t. 33, f. 11—17. *Abbild. t.* 33, f. 11—17. *Cylindrophis rufa*, var. 1, *Gray, Zool. Misc.* 43.

Black muzzle; end of tail white; belly black and white banded; tail longer than the head, slightly flattened on the three sides, truncated at the tip.

a. In spirits. *Celebes.* From the *Leyden Museum.*

** *Tail conical; muzzle broad.*

2. The SCHILAJ PAMBOO. *Cylindrophis rufa*, *Gray, Zool. Misc.* 43. *Dum. & Bib. Erp. Gen.* vi. 595. *Tortrix rufa*, *Schlegel, Phys. Serp.* ii. 9, t. 1, f. 1, 2. *Abbild.* iii. 33, f. 5—10. *Russell, Ind. Serp.* ii. 62, t. 27, t. 28, f. 1. *Seba, Thes.* ii. t. 25, f. 1. t. 7, f. 3, t. 20, f. 3. *Scheuch. P. S. t.* 629, t. 647, f. 1, t. 748, f. 6. *Anguis rubra*, *Laur. Syn.* 71. *A. rufa*, *Schn. Amph.* *A. Scytale*,

Russell, Ind. Serp. ii. t. 27, 28, f. 1. *Scytale Scheuchzeri, Merrem, Tent.* 91, on *Scheuch. P. S.* t. 647, f. 1. *Eryx rufa, Daud. Rept.* vii. 263. *Ilysia rufa, Licht. Verz. Doub.* 104. *Fitz. N. Class.* 54. *Cylindrophis resplendens, Wagler, Syst.* 194. *Icon.* t. 5, f. 4. *Anguis rufus, Gmelin, S. N.* 1123. *A. striatus, Gmelin, S. N.* 1119. *A. corallina, Shaw, Zool.* iii. 582, t. 131.

Tail conical, shorter than the head: black or reddish, often white-ringed; head and tip of tail black; a white spot on each frontonasal plate.

a—c. In spirits. Adult and half grown. Penang. Presented by General Hardwicke.

Var. 1. *Javanica*. Black, red rings far apart; head with two red spots. *Schlegel, Abbild.* t. 33, f. 5, 10.

d. In spirits. Adult. Borneo. Presented by Sir James Brooke.

Var. 2. Black; rings above distant, beneath very close.

e. In spirits. Young. Batavia?

f. In spirits. Black; sides slightly white banded; beneath black and white banded; nose and tip of tail black. Celebes. From the Leyden Museum.

Tortrix Celebensis, Mus. Leyden.

*** Tail conical; muzzle narrow.

3. The MIGUEL. *Cylindrophis maculata, Wagler, Syst.* 195. *Gray, Zool. Misc.* 46. *Dum. & Bib. Erp. Gen.* vi. 597. *Tortrix maculata, Schlegel, Phys. Serp.* ii. 12, t. 1, f. 6, 7. *Russell, Ind. Serp.* ii. t. 29. *Guerin, Iconog.* t. 19, f. 1. *Scheuchz. P. S.* t. 660, f. 3, 656, B. *Anguis tessellata, A. decussata, Laur.* 72, from *Seba, Thes.* i. t. 53, f. 7; ii. t. 100, f. 2. *A. maculatus, Schneid. Amph.* ii. 328. *Daud. Rept.* vii. 319. *A. maculata, Linn. Mus. Adolph.* t. 21, f. 3. *Syst. Nat.* i. 391. *Anguis, No. 5, Gronov. Mus. Ichth.* 53. *Tortrix maculatus, Oppell, Ord. Rept.* 56. *Le Miguel, Daub. Ilysia maculata, Licht. Doub.* 104. *Fitz. N. Class. Rept.* 54.

Red or brown, black netted; beneath whitish: tail conical, shorter than the head.

a, b. In spirits. Adult; rather discoloured. India. Presented by Dr. Patrick Russell.

c. In spirits. Adult. Ceylon. Presented by Sir Joseph Banks, Bart., P.R.S., &c.

d. In spirits. Ceylon. Presented by R. Templeton, Esq.

- c. *Head shielded, small; muzzle rather depressed: nostrils between two shields: eyes surrounded by small plates: tail very short: anal spurs small, hidden.* Charinina.

24. CHARINA.

Head short; crown flat; sides shelving; muzzle blunt, rounded: frontals 4, transverse, band-like, hinder rather larger; vertebral very large; occipital very small, oblique; two loreal, three anterior larger and three posterior smaller oculars; superciliary 3-3, small; rostral large, convex: nostrils lateral, very small, between two nasal scales, the upper band-like, transverse, like a frontal, margining the rostral: eyes moderate, surrounded by small scales: throat with small scales; shield small, with a distinct longitudinal gular fold: two front upper labial shields large; rest smaller, lower: front lower labial high, slender; hinder lower: body elongate, cylindrical: scales smooth, rhombic, imbricate, lower series largest: ventral shields narrow, transverse: tail short, blunt at the end: subcaudal plates narrow, six-sided, simple.

Tortrix sp., *Blainville l. c.* Not noticed by *Dumeril & Bibron*.

1. The CHARINA. *Charina* Bottæ. *Tortrix* Bottæ, *Blainv. N. Ann. Mus.* 1835, t. 26, f. 1.

Body elongate, cylindrical, blunt at each end, pale yellow; back and tail darker; one series of scales between eyes and labial shields.

- a. In spirits. California. From Mr. Douglas's collection. Presented by the Zoological Society.

- d. *Head shielded, small, cylindrical like the body; muzzle depressed, rounded: nostrils between two plates: no hinder frontal bone: intermaxillary teeth distinct: eyes in the middle of a plate: tail very short, cylindrical, not prehensile: anal spurs very small, hidden.* Tortricina.

Anguiformes pars, *Oppell, Rept.* 1811. *Cylindriques* pars, *Latreille, Fam. Nat.* 100. *Ilysioides* pars, *Fitz. N. Class. Rept.* 26. *Tortricina* pars, *Muller*. *Tortricides* pars, *Dum. & Bib. Erp. Gen.* vi. 581. *Imbricatæ* pars, *Boie, Isis*, xx. 510, 1827. *Cylindrophes* pars, *Fitz. Syst. Rept.* 24, 1843.

25. TORTRIX.

Head shields 7, normal; no internasal nor post-ocular: nostrils subvertical, in a single shield with a slit above: eyes subverti-

cal; pupil round, covered with a plate, which is transparent in the centre: scales smooth: subcaudal plates one-rowed: anal spurs very small, sunk in small pits. Viviparous.

Tortrix, *Oppell. Dum. & Bib. Erp. Gen. vi. 584. Ilysia, Hemprich. Wagler, Syst. Amph. Gray, Zool. Misc. 1842. Fitz. N. Class. 54. Syst. 24. Anilius, Oken. Torquatrix sp., Haworth. Torquatrix, Gray, Ann. Phil. 1825, x. 209. Anguis sp., Linn.*

1. The CORAL SNAKE. Tortrix Scytale, *Oppell, Ord. Rept. 56. Schlegel, Phys. Serp. ii. 5, t. 1, f. 4, 5. Abbild. 110, t. 33, f. 14. Wagler, Icon. t. 5, f. 2. Dum. & Bib. Erp. Gen. vi. 585. Anguis Scytale, Linn. Mus. Ad. Fred. t. 6, f. 2, adult. Laur. Syn. 70. Merian, t. 69 (t. 31, f. 2). Scheuch. P. S. t. 628, B, and t. 678, f. 2. Seba, Thes. ii. t. 73, f. 2, 3, t. 30, f. 2; i. t. 84, f. 1. A. corallina, A. atra, A. cærulea, Laur. 71. A. annulata, Laur. Syn. 69. Merrem, Tent. 82. A. fasciata, Laur. Syn. 70. Daud. Rept. vii. t. 87, f. 1. Le Rouleau et Le Rouge, Lincep. Quad. Ovip. ii. t. 19, f. 2. A. rostratus, Weigel, Berl. Gesellsch. iii. 190. Amphisbæna fuliginosa, Knorr. Delic. Phys. ii. 136, t. 60, n. 1. Anguis corallinus, Schneid. Amph. ii. 331. Daud. Rept. vii. 298. A. ater, Shaw, Zool. iii. 583, t. 132. Anguis fasciatus, Daud. Rept. vii. 306. Tortrix corallinus, Oppell, Ord. Rept. 56. Ilysia Scytale, Hemp. Handb. Licht. Verz. Doub. 104. Fitz. N. Class. Rept. 54. Torquatrix, Haworth, Phil. Mag. 372, 1825. Torquatrix Scytale, Gray, Ann. Phil. 1825, x. 209.*

- a. In spirits. Adult. Demerara. Presented by R. Latham, Esq. Scytale corallina, *Leach, MSS. 1816.*
- b. In spirits. Adult. Demerara. Presented by Hancock, M.D.
- c. In spirits. Nearly adult. Berbice. Presented by Lady Essex.
- d. In spirits. Nearly adult. Demerara. Presented by Lieut. Friend, B.N.
- e. In spirits. Adult; discoloured. Tropical America. Presented by the Royal College of Surgeons.

Var. 1. Black rings closer.

- f. In spirits. Adult; discoloured. Tropical America. Presented by the Royal College of Surgeons.
"Anguis Scytale, Linn."

ADDITIONS.

Page 4. CRASPEDOCEPHALUS, *add as synonym*

Trigalus sp., *Rafin. Anal. Nat.* 77, 1815.

Page 9, *add*

TRIMESURUS? erythrurus. "Trigonocephalus erythrurus, *Cantor, Proc. Zool. Soc.* 1839, 31.

"Bright green above, with ovate, keeled, slightly imbricate scales; the tail cinnamon-red, with smooth imbricate scales; the abdominal surface greenish yellow, enclosed on the sides by a black serrated line.

"Inhab. the Delta of the Ganges." *Cantor.*

TRIMESURUS? mucrosquamatus. "Trigonocephalus mucrosquamatus, *Cantor, Proc. Zool. Soc.* 1839, 32.

"Above brownish gray, with black-edged rings; scales oval, half keeled, imbricate; beneath whitish, black-dotted, 219 + 91.

"Inhab. Naja Hills, Assam." *Cantor.*

I have not been able to see either of these species.

Page 10. TRIMESURUS strigatus, *add*

a, b. In fluid. Madras. Presented by J. C. Jerdon, Esq.

Page 12. ATROPOS, *add*

? Atropos, *Rafin. Anal. Nat.* 77, 1815.

Page 14. TRIGONOCEPHALUS Halys, *add*

Bonaparte, Mem. Acad. Turin, ii. 1839, 35. T. carayanus, *Eichwald, Z. S.*

Page 15. TRIGONOCEPHALUS Hypnale, *add*

b. In fluid. Ceylon. Presented by A. Paul, Esq.

Page 15. CENOCHRIS, *add*

Tip of tail with several rows of scales beneath.

Page 19. *CROTALUS*, add

Crotalinus sp., *Rafin. Anal. Nat.* 77, 1815.

Page 19. *UROPSOPHUS durissus*, add

Lower edge of temporal streak covering the upper half of the hinder upper labial shields, and forming a large spot at the under part of the angle of the mouth.

2. The SPOTTED RATTLE-SNAKE. *Uropsophus triseriatus*, *Wagler, Amph.* 166. *Gray, Zool. Misc.* 51. *Crotalus triseriatus*, *Wiegmann, Mus. Berl.*

Pale brown; temple with a dark streak from the back edge of the eye, the lower edge of the streak just edging the top of the hinder upper labial shields, and not continued under the angle of the mouth; crown of head and middle of occiput dark brown; back with a central series of pale-edged oblong or rhombic spots, and sides with a series of irregular dark marks; belly pale, darker clouded on the sides.

a, b. In fluid. N. America (West Coast?) Presented by Capt. Sir Edward Belcher, K.C.B., R.N.

c. In fluid. Young and egg. N. America (West Coast?) Presented by Capt. Sir Edward Belcher, K.C.B., R.N.

Colour somewhat like *Crotalus horridus*, but easily known by the larger size of the labial shield and temporal scales. The references to *Wiegmann* and *Wagler* should be erased from the synonyma of the former species; having been induced, until I received these specimens, to place reliance on M. Schlegel's declaration, that the Mexican specimens did not differ from the common species. See *Phys. Serp.* ii. 366.

Page 23. In table of genera, after *SEPEDON*, add

7*. *CAUSUS*. Scales of sides smooth, of back slightly keeled; eyes surrounded by small scales.

Page 24, add

4. The EUPHRATIC KATUKA. *Daboia Euphratica*. *Vipera Euphratica*, *Martin, Proc. Zool. Soc.* 1838, 83.

Brownish gray, minutely black freckled; dots forming obscure bands or markings; beneath pale yellow, obscurely mottled; scales

of the body large, flat, elongated, rounded at the end ; an elongated plate between the nasal and rostral plates.

Inhab. Shores of Euphrates, *Martin*. Mus Zool. Soc. ?

I have not been able to find it in the collection : it may be the same as *D. Xanthina*.

Page 27, *add*

1. The PERUVIAN ADDER. *Clotho* ? *ocellata*. *Echidna ocellata*, *Tschudi*, *Rept. Consp.* 166.

Brown, with two longitudinal series of pale centred black spots ; beneath ash-brown ; shields 139 + 22. Length 10 inches.

Inhab. Peru, *Tschudi*.

This is the only species of *Viperidæ* found in the Western World. I do not know to which genus it properly belongs, as I have not seen it.

Page 27. CERASTES, *add*

Cerastes sp., *Rafin. Anal. Nat.* 77, 1815.

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